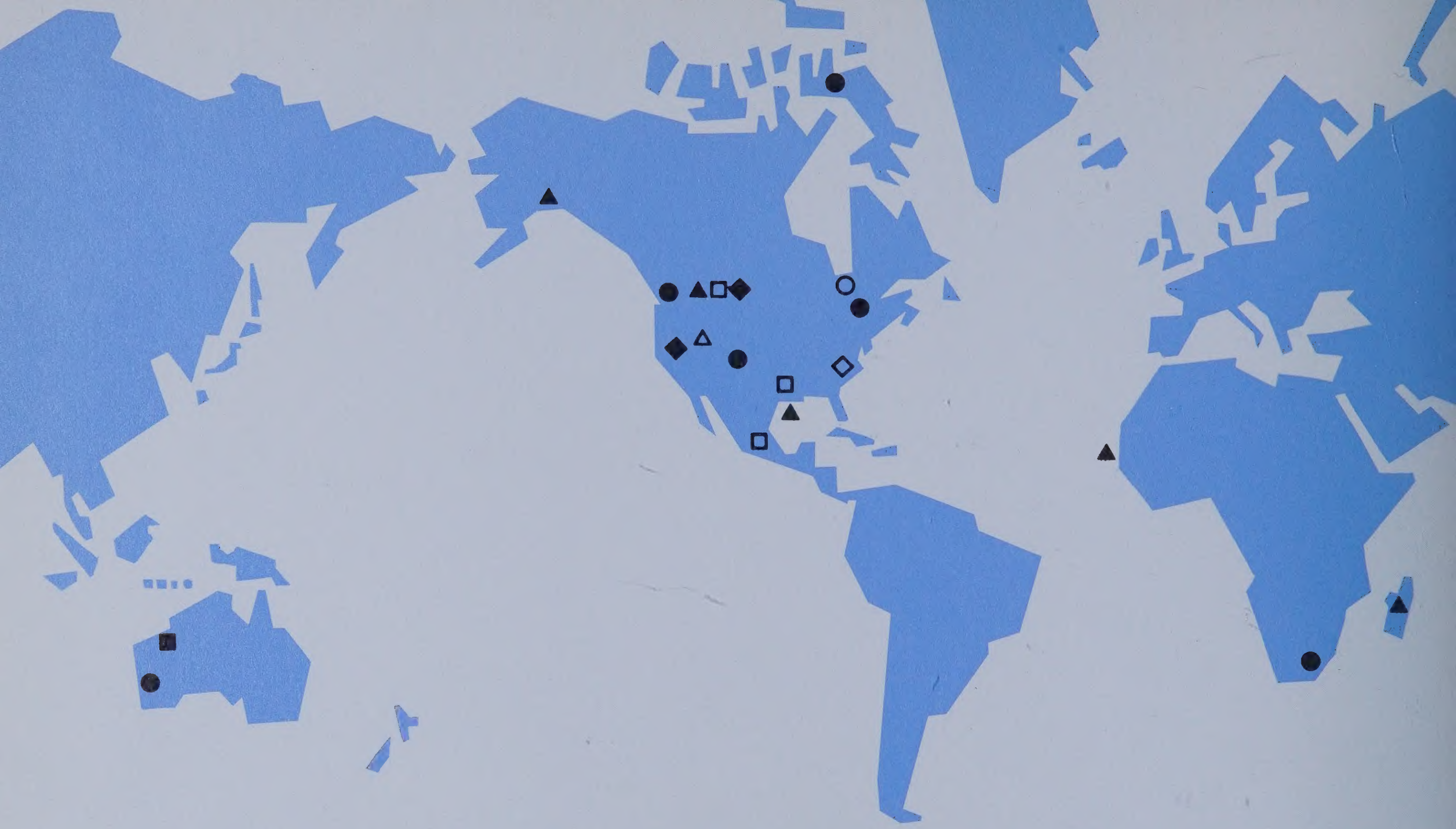
AR24

1972 Annual Report

Texasgulf



Key

- ■ Iron
- ● Exploration—Metals
- ▲ Exploration—Oil and Gas
- ◆ Potash
- □ Sulphur
- ○ Metals
- ◇ Phosphate
- △ Trona

Product	Location	Output
Cadmium	Ontario, Canada	New zinc plant produced 173,000 pounds of cadmium in 1972. Capacity to be expanded to about 1,250,000 pounds a year.
Copper	Ontario, Canada	44,200 tons of refined copper were produced for Texasgulf from Kidd Creek concentrates in 1972 by a custom smelter in Quebec, Canada.
Forest products	Pennsylvania; Ontario, Canada	252,000 acres of woodland produce timber for wood products and paper pulp.
Iron ore	Western Australia	Robe River iron ore project in which Texasgulf has a 10.5 per cent interest shipped 1,185,220 tons of sinter fines and 236,190 tons of pellets in 1972. Production of 8.2 million tons is scheduled for 1973 and 10.3 million tons by 1975, of which 4.2 million tons will be pellets.
Oil and Gas	United States and Canada	244,000 barrels of oil, 17.8 billion cubic feet of gas and 1.5 million gallons of natural gas liquids were produced in 1972.
Phosphate fertilizer materials	North Carolina	Phosphate products include phosphoric acid, superphosphoric acid, diammonium phosphate, granular triple superphosphate, ROP triple superphosphate, phosphate rock and calcined phosphate rock. Lee Creek's phosphoric acid production capacity will be expanded by 50 per cent to a total of 510,000 tons per year of acid P_2O_5 by January, 1974.
Potash	Saskatchewan, Canada; Utah	Texasgulf's share of production of potash from the Allan Potash Mines in 1972 was more than 368,000 tons. Solution mining in Utah began in 1972, producing 150,000 tons, which will increase to an annual rate of 300,000 tons.
Silver	Ontario, Canada	13,039,000 troy ounces were contained in Kidd Creek Mine concentrates in 1972.
Sulphur—Frasch	Texas, Louisiana, Mexico	Six Frasch mines produced more than 2,301,000 tons of sulphur in 1972.
Sulphur—Recovered	Alberta, Canada	Three plants recover more than 567,000 long tons of sulphur annually from sour natural gas.
Sulphuric Acid	North Carolina; Ontario, Canada	Lee Creek produced 915,000 tons in 1972. In Ontario, the new zinc plant produced 120,000 tons in 1972.
Tin	Ontario, Canada	A new circuit in the Kidd Creek concentrator is being constructed to produce concentrates containing about 1½ million pounds of tin metal per year by the end of 1973.
Trona	Wyoming	Plans are under way to construct facilities to produce 1,000,000 tons of soda ash per year beginning in 1976.
Zinc metal	Ontario, Canada	New zinc plant produced 60,100 tons in 1972. Annual production capacity of 120,000 tons is being increased to about 150,000 tons.
Zinc, copper and lead-silver concentrates	Ontario, Canada	Kidd Creek concentrator in 1972 produced 616,700 tons of zinc concentrates, 182,200 tons of copper concentrates and 42,100 tons of lead concentrates.

Texas Gulf, Inc. 1972 Annual Report

1972 Highlights

3 Sales set new record high in 1972. Earnings improved.

4 New zinc plant at Timmins started up successfully in April, 1972.

5 Kidd Creek underground mine development progresses. Metals demand continued strong. Prices improved.

6 Phosphate fertilizer worldwide demand exceeds supply. Lee Creek expanding acid production.

7 Conversion to solution mining of potash in Utah is completed.

8 Trona facilities being planned to produce 1,000,000 tons of soda ash per year.

9 Sulphur use continued to grow at faster rate than production in the United States.

11 Sulphur prices increased in the United States and Canada.

11 Oil and gas production increased in the United States and Canada.

12 Oil and gas exploration in Gulf of Mexico supports active drilling program.

15 Exploration for other minerals active in the United States, Canada, Australia and Africa.

16 Exploration results of nickel-copper project at Sherlock Bay are encouraging.

17 Robe River iron ore project completed. Other Western Australian reserves under study.

19 Canadian ownership of company now more than 14 per cent.

20 Financial review.

22 Financial statements, accountants' report and 10-year statistics.

Annual Meeting. The annual meeting of stockholders will be held in the Houston Club building, Houston, Texas on Thursday, April 26, 1973. Notice of the meeting, proxy statement and proxy will be sent to stockholders on or about March 21, 1973.

Texasgulf

On the cover. A new graphic design for the company's signature is shown on the cover. One of the proposals to be voted on at the annual meeting is to establish Texasgulf Inc. as the corporate name. The new signature and shorthand logo **Tg** as shown on the back cover were designed to help distinguish the corporate name from others which look or sound alike. By avoiding a specific geographical association, the new name is more appropriate to a company engaged in finding and developing a broad range of resources worldwide. The shorthand **Tg** suggests the symbols in the periodic table of the chemical elements.

Texas Gulf, Inc. and Consolidated Subsidiaries

Comparative Financial Highlights

	1972	1971	1970	1963***
Gross sales	$316,048,000	$271,324,000	$283,047,000	$ 62,249,000
Less outside zinc and lead smelting and refining charges	$ 45,506,000	$ 53,625,000	$ 63,588,000	$ —
	$270,542,000	$217,699,000	$219,459,000	$ 62,249,000
Income before extraordinary charge	$ 30,562,000	$ 25,226,000	$ 45,823,000	$ 9,354,000
Extraordinary charge net of tax	$ —	$ (4,675,000)	$ —	$ —
Net income	$ 30,562,000	$ 20,551,000	$ 45,823,000	$ 9,354,000
Income per share before extraordinary charge	$ 1.01	$ .83	$ 1.51	$ .31
Net income per share	$ 1.01	$ .68	$ 1.51	$ .31
Cash earnings*	$ 73,968,000	$ 44,684,000	$ 56,298,000	$ 17,562,000
Cash earnings per share	$ 2.43	$ 1.47	$ 1.85	$ 0.58
Cash dividends per share	$ .60	$ .60	$ .60	$ .13⅓
Working capital	$ 93,662,000	$ 87,050,000	$ 87,670,000	$ 46,975,000
Ratio of current assets to current liabilities	2.5 to 1	2.5 to 1	1.9 to 1	3.6 to 1
Total assets	$711,430,000	$670,016,000	$647,146,000	$187,283,000
Notes payable, less current portion	$172,140,000	$168,519,000	$119,900,000	$ —
Stockholders' equity	$385,254,000	$372,691,000	$370,372,000	$129,715,000
Number of stockholders of record Dec. 31	80,247**	82,511	79,728	64,918
Average number of shares outstanding	30,395,912	30,386,007	30,386,007	30,047,814

*Cash earnings consist of net income (prior to the extraordinary charge in 1971) plus non-cash charges, chiefly depreciation, amortization, write-off of exploration costs of prior years, and deferred taxes.

**There are an estimated 33,000 additional beneficial stockholders.

***Per share data and average number of shares outstanding adjusted to reflect 3-for-1 stock split May 6, 1968.

To Our Stockholders:

Claude O. Stephens Charles F. Fogarty

Texasgulf sales established a new record in 1972, reflecting strong demand for all of the company's products. Earnings were also higher than the previous year, despite higher costs, price control limitations affecting some products and continued depressed prices for sulphur. The outlook is favorable for continued improvement in 1973 in both sales and earnings.

Gross sales in 1972 were $316,048,000, and sales after smelting and refining charges amounted to $270,542,000 in 1972, compared with $217,699,000 in 1971.

Net income for 1972 was $30,562,000, or $1.01 per share, compared with income of $25,226,000, or 83 cents per share in 1971 before being reduced by $4,675,000, or 15 cents per share, as a result of an extraordinary charge.

The earnings increase in 1972 resulted principally from substantial improvements in phosphate fertilizers and phosphoric acid, increased revenues from oil and gas, and higher tonnage sales of potash and sulphur. Metals operating income for 1972 was about the same as in 1971. Exploration charges against earnings were lower in 1972. Interest costs were higher as a result of increased debt.

Cash earnings for 1972 were $73,968,000 or $2.43 per share. This was an increase of 66% over $44,684,000 or $1.47 per share earned in 1971. Cash earnings consist of net income (prior to the extraordinary charge in 1971) plus non-cash charges, chiefly depreciation, amortization, write-off of exploration costs of prior years, and deferred taxes.

Metals Operations

Production continued at a high level at the Kidd Creek mine and concentrator in Timmins, Ontario. Texasgulf's wholly-owned subsidiary, Ecstall Mining Limited, produced and processed 3,628,000 tons of ore in 1972, compared with 3,684,000 in 1971. Production included:

	1972	1971
Copper Concentrates (25% copper)	182,200 (short tons)	182,100
Lead Concentrates	42,100 (short tons)	61,900
Zinc Concentrates (52% zinc)	616,700 (short tons)	590,800
Zinc Metal	60,100 (short tons)	—

Other metals contained in these concentrates included:

	1972	1971
Silver (troy ounces)	13,039,000	12,720,000
Cadmium (pounds)	3,034,000	3,214,000

A metallurgical change in the concentrating process, dictated by marketing considerations, accounted for the reduction in the quantity of lead concentrates produced. Although the tonnage of lead concentrates produced was lower in 1972, the grade was higher and enabled total production of lead and silver in 1972 to equal that of 1971.

Gross sales of metals and concentrates before outside lead and zinc smelting and refining charges amounted to $192,146,000 compared to $172,738,000 in 1971. Sales volume in 1972 included sales of zinc metal which had been purchased for resale to serve the zinc market in anticipation of production from the new zinc plant. Since these purchases were made at current market prices, the sales increase was not accompanied by a corresponding increase in earnings.

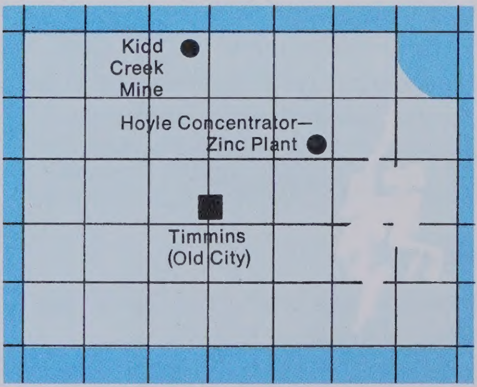
Zinc plant. A substantial part of Texasgulf's zinc production was shifted from the concentrate market to the metal market beginning in the second quarter of 1972 when the company's new zinc plant adjacent to the concentrator started production. About half of the Kidd Creek zinc output will be produced as metal at its own plant by the end of 1973.

The zinc plant was originally designed to produce annually about 120,000 short tons of refined zinc metal, 230,000 tons of sulphuric acid, 1,000,000 pounds of cadmium, some cement copper and a silver-lead leach residue. Production of zinc metal during 1972 totaled 60,100 short tons. The plant reached more than 90 per cent of its design capacity in December. Because of a delay in delivery of equipment cadmium metal production totaled only 173,000 pounds in 1972. The partially processed residues containing additional cadmium metal will be treated in 1973 in addition to the normal production. Sulphuric acid production was 120,000 tons.

Planned conversion of the zinc plant production from batch leaching and purification to a continuous operation is now under way and should be completed by mid-1974. This change plus various modifications to the acid plant and other minor changes at a total cost of about $5 million, should increase zinc metal production capacity by some 25 per cent, from an annual rate of 120,000 tons to about 150,000 tons.

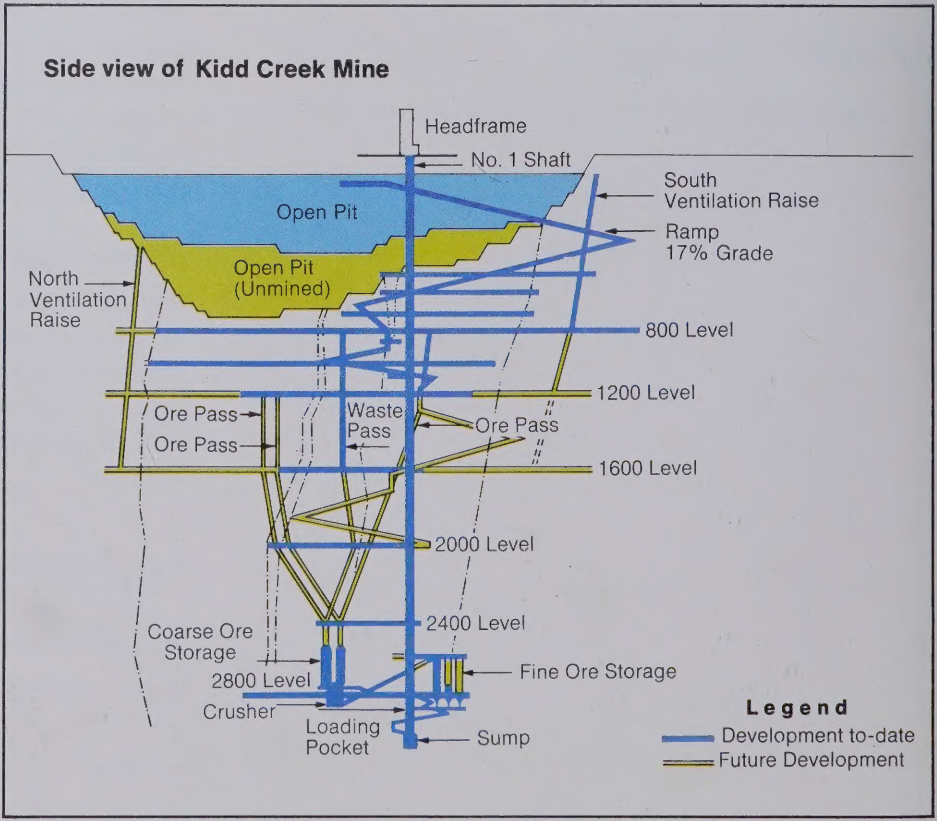
There will be corresponding increases in production capacity for the plant's other products. Sulphuric acid capacity will increase from 230,000 tons to about 285,000 tons per year, and cadmium metal from 1,000,000 pounds to 1,250,000 pounds per year.

The intent is to make the zinc plant as fully automated and efficient as is possible. This will also include mechanical stripping, casting and stacking.



The Kidd Creek mine and the concentrator-zinc plant, some 17.5 miles apart, are all now in the new City of Timmins. The new city, incorporated January 1, 1973, covers over 1260 square miles, making it one of the largest in the world. It has a population of some 42,000 people.

This longitudinal projection is a side view ► of the Kidd Creek Mine looking from west to east, with the headframe and shaft in the foreground and the open pit beyond.



Side view of Kidd Creek Mine

Hydrometallurgy. Feasibility studies are being made as to the potential of a hydrometallurgical processing plant at Kidd Creek. This type of facility would permit the on site treatment of all of the copper and lead concentrates rather than shipping them out of the Province for smelting and refining as is done currently. In addition to producing refined copper, lead and silver, it could increase zinc metal production by about 15,000 tons per year. This zinc, for which no payment to Texasgulf is made, now remains with the outside smelters treating the copper and lead concentrates.

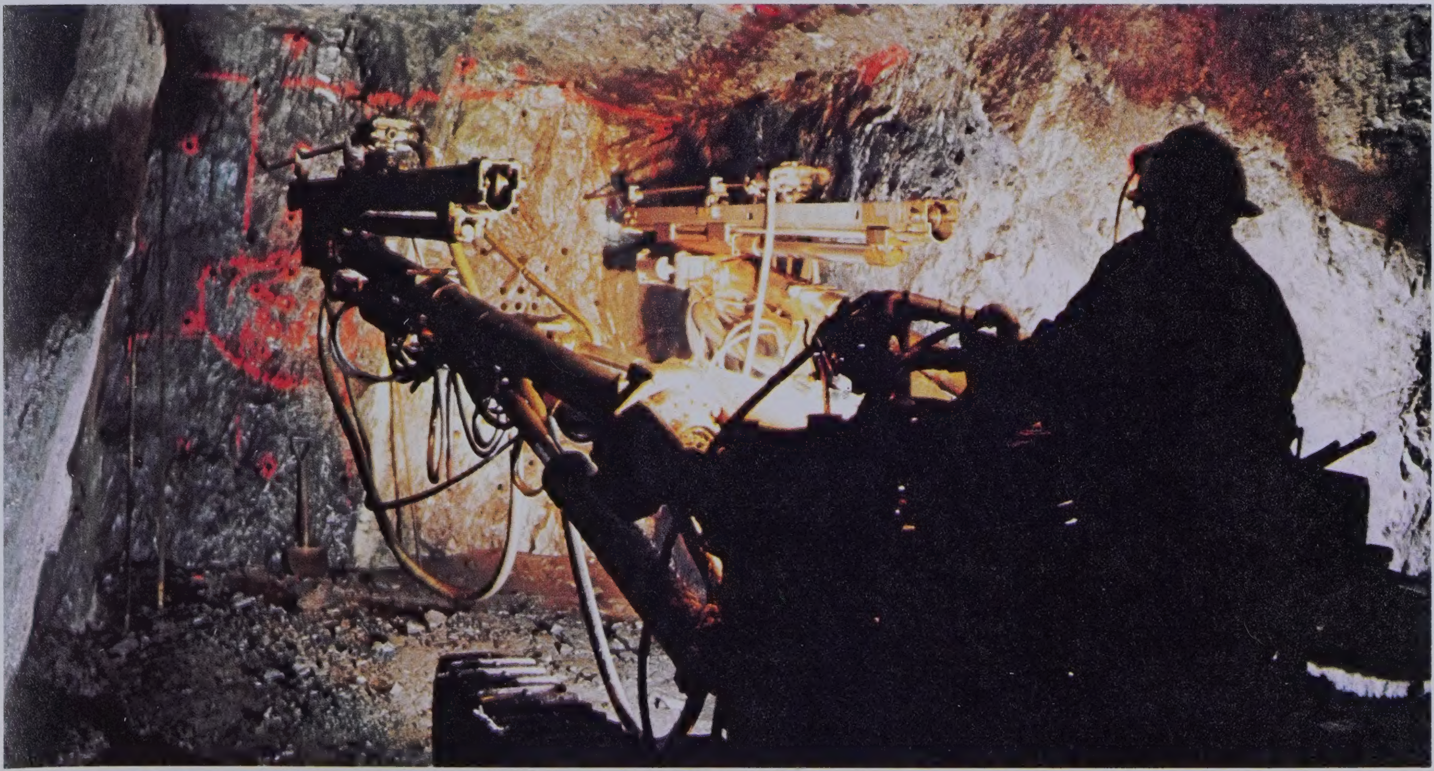
Underground mine. Pre-production development has been substantially completed on the 800 and 1200-foot levels of the underground mine at Kidd Creek. Stope drilling has made preparations for the blasting of a substantial tonnage of ore which, when broken, will gravity feed to the underground crushing station at the 2800-foot level.

Excavation for the crusher and the main underground conveyor at the 2800-foot level has been completed and the crusher is now being installed. The underground ore handling system is expected to supply 2,000 tons per day by the end of 1973. It will be capable of providing the entire concentrator feed of 10,000 tons daily, as the open pit is gradually phased out over the next several years.

The underground exploration program will be resumed at the 2800-foot level after a long delay because it would have interfered with construction and development work. Diamond drilling will be done from several stations in all directions. Both horizontal and inclined holes will explore at greater depths for possible extensions. Drilling is also continuing on some of the upper levels to further outline the ore body. The results to date have been completely satisfactory and appear to have increased the indicated grade in parts of the ore body.

Tin circuit. A circuit for the recovery of tin concentrates is being added to the Kidd Creek concentrator. It is scheduled to begin producing concentrates containing about 1½ million pounds of tin metal per year by the end of 1973. Space for the circuit was provided in the original plan for the concentrator. The new circuit, estimated to cost about $5.5 million, will also produce a pyrite concentrate containing silver. Sulphur, sulphuric acid and silver may be recovered from the pyrite concentrate if prices for these materials improve.

Metals demand strong. The demand for metal concentrates and metals was strong throughout 1972. Prices were firm and improving. Texasgulf's price for special high-grade zinc metal strengthened during the year from 18 cents per pound in the first quarter to 20½ cents in November. United States demand for



Underground mining at the Kidd Creek Mine in Timmins, Ontario, will begin in 1973 and will be capable of providing the entire concentrator feed of 10,000 tons daily within a few years as the open pit is gradually phased out.

zinc was particularly heavy, reflecting the strength of the economy. Since the shutdown of six zinc smelters for environmental and other reasons, the U.S. must now import more than half of its annual consumption of over 1,300,000 tons per year of zinc metal. A considerable tonnage of concentrates is also imported as most of the remaining zinc smelters are not self-sufficient.

Texasgulf's return from foreign zinc concentrate sales will increase as a result of a change in the international producers' price in late February, 1973 from 19 cents to about 21 cents per pound.

Copper prices returned to 53 cents per pound in January, 1973 after declining to 50½ cents in the second quarter of 1972. In mid-February, 1973 prices increased to 56 cents and in early March to 60 cents per pound.

Silver prices recovered substantially, rising from $1.50 per ounce in early 1972 to more than $2.30 in early March, 1973.

Cadmium prices and demand were strong throughout the year. Prices increased from $1.75 in January, 1972 to $3.25 in January, 1973 and $3.75 in early March, 1973.

Although the lead market is under some pressure for environmental reasons, the average price in 1972 was slightly higher than 1971. In early March, 1973 lead prices increased from 15½ cents to 16 cents per pound.

Chemical and Agricultural Operations

Production of chemical and agricultural products in 1972 compared with 1971 included:

(short tons of product)	**1972**	**1971**
Dry phosphate fertilizers	405,700	281,000
Phosphoric acid as 54% P_2O_5	594,300	477,500
Potash	518,400	266,900
Sulphur (long tons)	2,868,000	2,839,100

Sales of the chemical and agricultural group amounted to $118,942,000 in 1972 compared with $95,105,000 in 1971. Dry phosphate fertilizers include granular triple superphosphate, diammonium phosphate, and run-of-pile triple superphosphate. Phosphoric acid is sold either as 54% P_2O_5 or as super acid, which is over 70% P_2O_5.

Fertilizer outlook. The growing demand for all phosphate fertilizers developed into a worldwide shortage during 1972. The short supply in the United States was aggravated by price controls which resulted in a shift of deliveries by some U.S. producers to export markets where prices were from $20 to $30 per ton higher.

With the modification of the price control program early in 1973, United States producers announced higher prices for phosphate fertilizer materials. This action may help bring domestic supply and demand

The new zinc plant at Timmins began operating in April, 1972. It will process about one-half of Kidd Creek's zinc concentrates. Plans are under way to expand production by about 25 per cent.

into better balance by diverting some material from the export markets.

Potash market balance has been largely achieved through the production pro-rationing program of the Saskatchewan Government. A change in the program was made effective July 1, 1972 giving a production license based solely on a percentage of productive capacity, which is currently 50 per cent for all producers, rather than on the more complicated prior formula.

While the price for standard-grade potash has been maintained at a floor price of 33.75 cents per unit of K_2O, or about $20.25 (Canadian) per ton, under the pro-rationing regulations, there has been a tendency for premium-grade potash prices to fall to the level of the standard-grade. Good weather, however, should increase the demand for premium grades.

The recent release of about 40,000,000 acres of farm land from the U.S. soil bank to help increase food production will require more fertilizers in 1973.

World consumption of phosphate fertilizer materials increased from 19.7 million tons in 1971 to an estimated 20.9 million tons in 1972. World consumption of muriate of potash rose from 16.5 million tons to an estimated 17.6 million tons.

Lee Creek operations. Phosphoric acid production at Lee Creek in North Carolina increased 24 per cent in 1972. This record production made acid P_2O_5 available for the production of 44 per cent more dry fertilizers in 1972 over 1971.

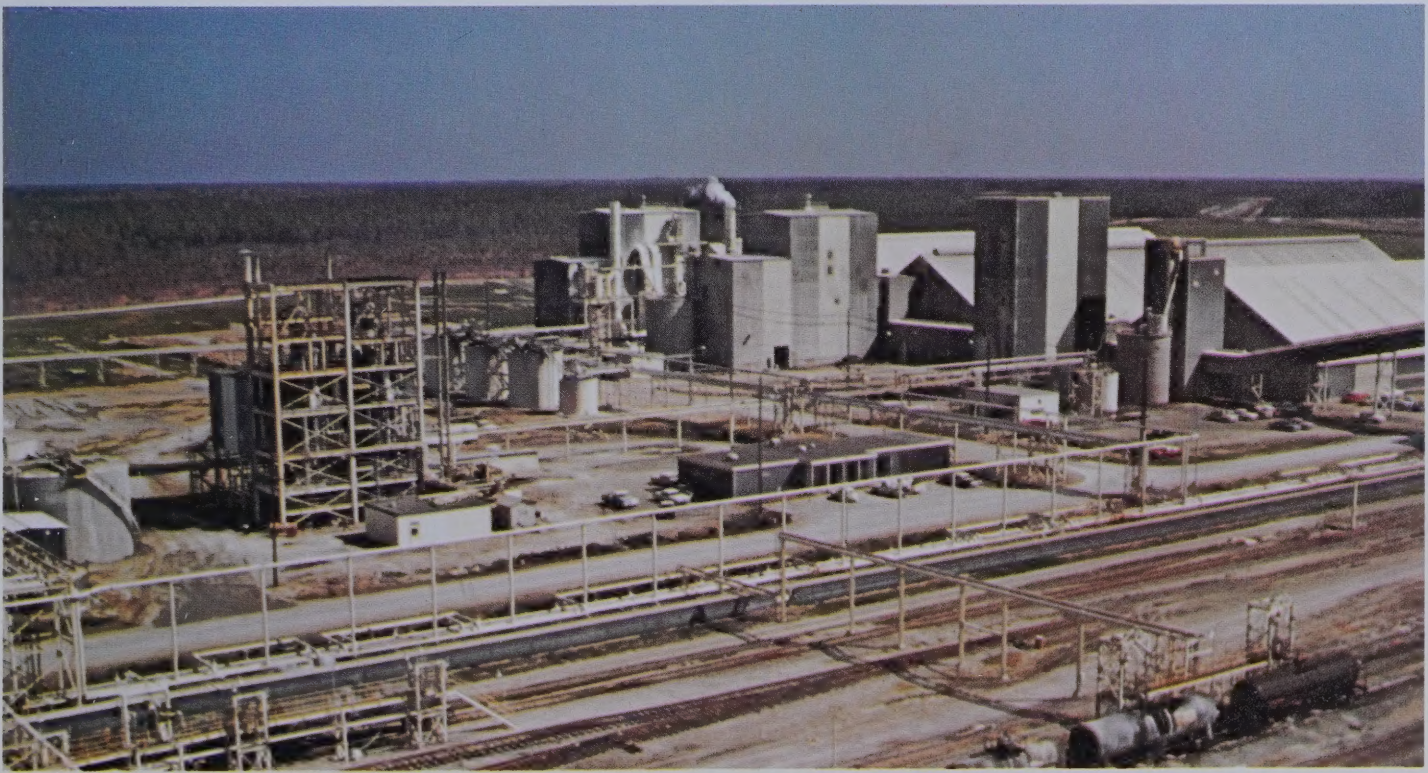
During 1972, Lee Creek successfully introduced a new product, Super-49 acid. It is the first superphosphoric acid created for the liquid fertilizer industry specifically for use as feedstock in the Tennessee Valley Authority's pipe-reactor process. This process produces a liquid fertilizer with extended storage life. The Super-49 acid permits economies in manufacturing such liquid fertilizers.

The sale of 54 per cent phosphoric acid produced at Lee Creek increased for the sixth consecutive year. This trend is expected to continue in recognition of the superior quality of Lee Creek's clear green acid.

Expansion of Lee Creek's acid production capacity by 50 per cent from 340,000 short tons of acid P_2O_5 per year to 510,000 tons is in progress and is expected to be completed by January of 1974. The $23,000,000 project will add a third sulphuric acid and phosphoric acid unit to the two existing units for each product.

The long-range plan for Lee Creek is to increase in stages the capacity of the acid plants from 510,000 tons to 1,000,000 tons of P_2O_5 over the next few years.

Potash operations. Texasgulf's potash production in 1972 increased 94 per cent over the previous year as a result of the start-up of the new solution mining process in Utah and increased production in Canada.



Acid production capacity at the Lee Creek Mine in North Carolina is being expanded by 50 per cent from 340,000 short tons of P_2O_5 to 510,000 per year. Long-range plans are to increase capacity to 1,000,000 tons.

Cane Creek. Potash production using the new solution mining process at the Cane Creek mine near Moab, Utah began March 1, 1972. Initial operations were highly successful, and more than 150,000 tons of a white, premium-grade product were produced by year end. Improvements were made during the year in the techniques of harvesting salts from the evaporation ponds and in other process areas. The first 10 months indicate that the new mining process will produce a premium product at a competitive cost. The operation is expected to reach the design capacity of 300,000 short tons per year of muriate of potash in 1973.

Although Cane Creek is expected to contribute substantially to cash flow during 1973, additions to earnings, if any, will be minimal due to the very high depreciation and amortization charges from the heavy capital investment made in the original underground mine and surface facilities and the conversion to solution mining.

Allan Potash. The world potash market has improved as a result of production and pricing regulations by the Provincial Government of Saskatchewan, Canada. Production at the Allan Potash Mines near Saskatoon, in which Texasgulf has a 40 per cent interest, was higher. Texasgulf's share of this production was 368,300 tons in 1972 compared to 266,900 tons in 1971.

Canpotex Limited, the Canadian potash marketing organization now made up of all Saskatchewan potash producers, was re-organized in late 1972 at the urging of the Saskatchewan Government. Canpotex's principal office will be in Regina, Saskatchewan, and its operations office in Toronto, Ontario. The new company will undertake to promote and sell Saskatchewan potash throughout the world exclusive of the United States and Canada.

Raleigh Headquarters. The Agricultural Division moved into a new building in Raleigh, North Carolina on September 1. It will be the first building to bear the new company name. In addition to the executive and marketing headquarters of the Agricultural Division, the building houses the company's corporate data processing center, which moved from New York City. This unit will serve all of Texasgulf's operations in the United States. A similar data processing center has been established at Timmins, Ontario, to provide service ultimately for all Canadian activities.

Trona. The company is proceeding with plans for the construction of underground mining facilities and a processing plant at Texasgulf's trona property in southwestern Wyoming at a cost of about $75 million. Initially the plant and related facilities will produce 1,000,000 tons of soda ash per year. Completion will be geared for market entry in 1976. Studies indicate

Conversion to the new solution mining process at the Cane Creek potash mine in Utah was highly successful. It is expected to reach a design capacity of 300,000 tons of high quality, white potash in 1973.

that this new production will be needed by that time.

Texasgulf's extensive reserves of trona consist principally of two flat-lying beds of consistent thickness and grade—92 per cent pure—at depths of 1370 and 1420 feet which have been thoroughly investigated. A 16-foot diameter shaft has been sunk to a depth of 1495 feet and a 3000-foot five entry system has been developed in the upper bed using continuous mining equipment. The lower bed has been opened up for over 100 feet. About 225,000 tons of ore were mined during this program. Reserves are large and more than adequate to support a production of at least 1,000,000 tons per year for several decades. Mining conditions are excellent and costs should be competitive. The plant and mine will be readily adaptable for expansion as growth in the market demands. Various market research studies conservatively indicate a deficiency of about 5 million tons of capacity by 1985 at present rates of production. By then practically all U.S. soda ash will be produced from natural trona.

Trona is converted into soda ash, which is an essential ingredient for the glass, chemical and other industries. Soda ash, like sulphur, is one of the basic chemical materials. In 1972, over 7.5 million tons were used in the United States and consumption has been growing at a rate of some 200,000 tons per year.

One of the major problems facing the trona industry in Wyoming is the energy crisis. Natural gas for fuel is in short supply and operations will probably have to depend more on coal in the future.

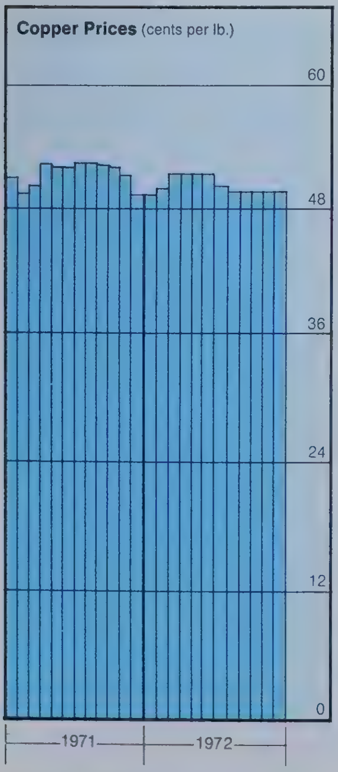
Sulphur use continues to grow. World consumption of sulphur established a new record high in 1972, as it has every year since 1962, and amounted to an estimated 40.4 million long tons, an increase of 6 per cent over 1971. World production rose 8.9 per cent to an estimated total of 44 million tons in 1972.

The largest single consumer of sulphur is the phosphate fertilizer industry. The demand for phosphate fertilizers in both developed and undeveloped nations throughout the world is at a historic high. This accounted for a very large part of the increased sulphur consumption, especially in the United States.

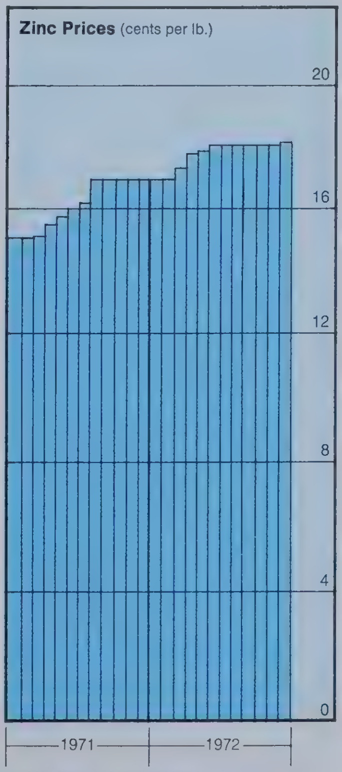
The industrial recovery in the United States also accounted for a significant increase in sulphur consumption, because of the heavier demands of the chemical and related industries.

Sulphur production in the United States increased 5.4 per cent from 9.7 million tons in 1971 to 10.2 million tons in 1972. Consumption rose from 9.3 million tons in 1971 to 9.9 million tons in 1972, a gain of 6.4 per cent.

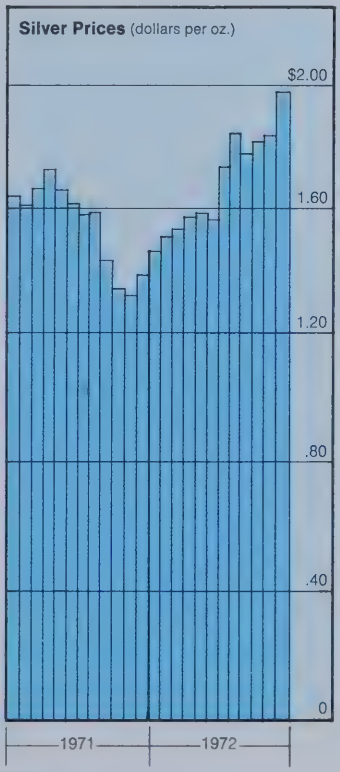
In addition to production from its Frasch sulphur mines in the United States, Texasgulf produces sulphur in Alberta, Canada and in Mexico. The different sources of production provide great flexibility in serving the world market.



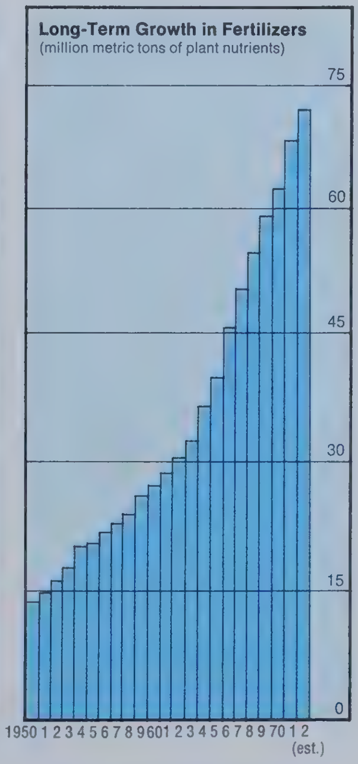
Electrolytic Wirebar
U.S. Producers f.o.b. refinery
Metals Week



Prime Western delivered
Metals Week



New York
Handy & Harman



Mexico. The Frasch sulphur mine at Texistepec on the Isthmus of Tehuantepec, Mexico, is owned by Compania Exploradora del Istmo (CEDI) in which Texasgulf has a 34 per cent interest. The company enjoys cordial relationships with the Mexican Government which has 66 per cent ownership of CEDI.

Natural Gas Energy Crisis. Production at the company's Bully Camp Frasch mine in Louisiana was suspended November 30 as a result of a Federal Power Commission (FPC) order permitting United Gas Pipe Line Company to reduce gas to 1.5 million cubic feet per day despite a 20-year firm contract signed in October 1967 to supply up to 10 million cubic feet per day. The Supreme Court in June 1972 in a landmark decision ruled that the FPC has the power to allocate gas in spite of signed contracts. This action amounts to granting FPC jurisdiction over a direct customer and gives the agency the power to abrogate contracts between the supplier and the consumer.

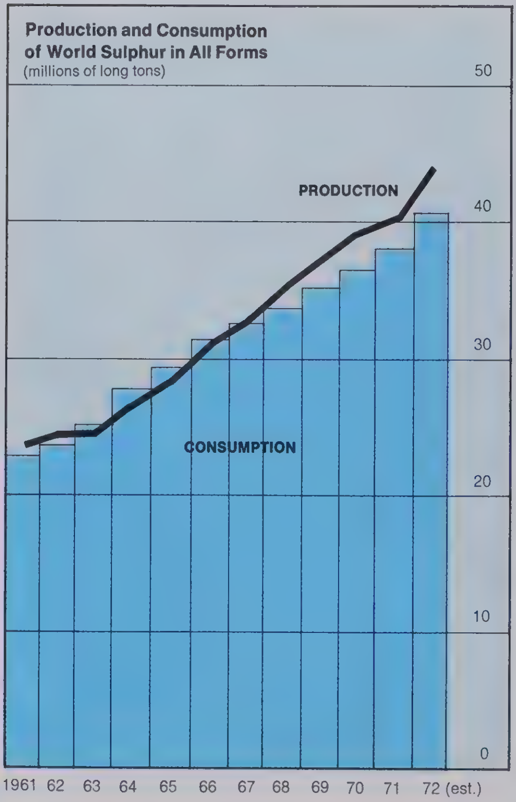
The FPC had asserted that it had the power to grant United immunity from damages for breach of contract. To test this holding Texasgulf filed suit for damages against United in the U.S. District Court for the District of Columbia. On appeal of this case the D.C. Court of Appeals held that even though the FPC may have authority to curtail gas it does not automatically follow that it can grant immunity from damages. On February 7, 1973, the U.S. Court of Appeals for the Fifth Circuit agreed with the D.C. Court of Appeals that the FPC had no such power.

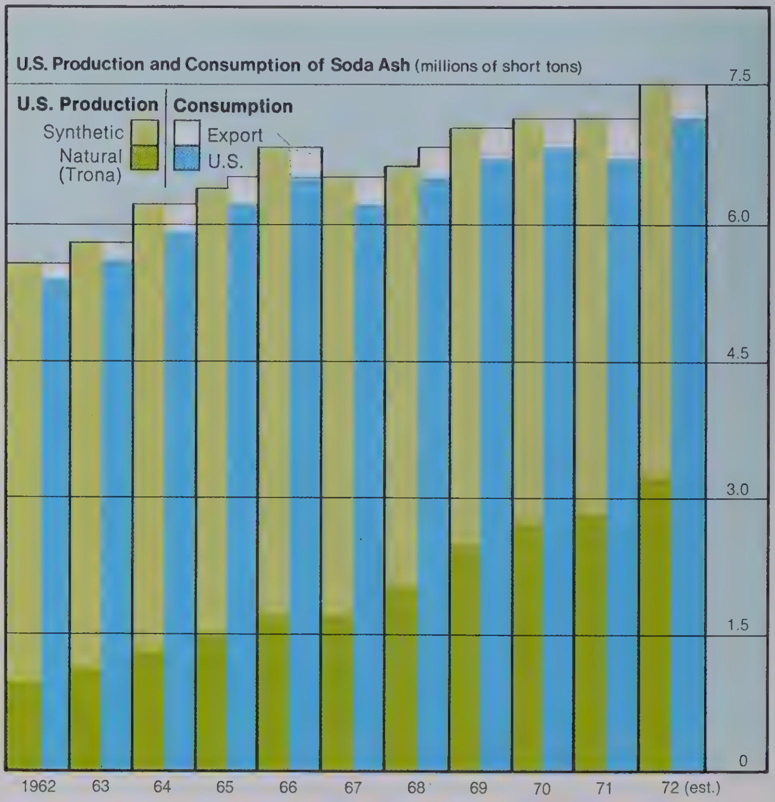
In its effort to keep Bully Camp open, Texasgulf has been involved in nine separate but related proceedings before the FPC, the Courts of the District of Columbia, and the Fifth Circuit and the Supreme Court. All available legal avenues have been exhausted. Texasgulf is still trying to locate gas from other sources at prices more than double its contract price with United.

Unless alternate sources of gas can be obtained, the Bully Camp mine will have to remain shut down, which will deprive the United States of a valuable natural resource and will certainly lessen competition. A law suit has been filed against United Gas Pipe Line Co. to recover damages for the financial loss sustained by Texasgulf because of United's breach of contract. United Gas Pipe Line Co. and Duval Corporation, another major Frasch sulphur producer, are both wholly owned subsidiaries of the Pennzoil Company.

A continued shortage of natural gas fuel could jeopardize operations at all Frasch sulphur mines in the industry. Even where it is available, the price of gas will be higher, contributing to increased costs of production.

Canadian by-product sulphur recovered from the processing of sour natural gas continued to account for a large part of the increase in world sulphur pro-





duction. However, in 1972, Canadian sulphur encountered increasing difficulties in reaching the world market. Much of this recovered sulphur is produced in remote areas which lack rail and shipping facilities. Additional costs are incurred if the recovered sulphur is prepared in flake form for export as required by the port of Vancouver to prevent pollution or in liquid form to serve Canadian and some U.S. customers. Price increases in the order of $5 per ton will be required before this inventoried sulphur can be made available for use.

Sulphur prices have been at unsatisfactorily low levels for the past four years. On January 8, 1973, Texasgulf announced an increase of $3 per long ton in the delivered price of Frasch sulphur in the United States. This occurred several days before the announcement of Phase III of Federal price controls, but in any case, the increase was within the limits allowed by the Economic Stabilization Act. This price increase has been followed by other major United States and some Canadian producers. Texasgulf raised its price for Western Canadian sulphur on February 5, 1973 to $9 per ton f.o.b. plant for United States and Canadian customers. While helpful in reversing a detrimental trend, these price adjustments will not offset all of the increased costs of natural gas fuel, environmental protection measures, materials and labor. Higher prices for both U.S. Frasch and Canadian recovered sulphur are still necessary.

Forest Products. The Armstrong Forest Division manages and harvests timber from its 139,000 acres of woodland in Pennsylvania and sells pulpwood logs to paper companies under cutting contracts from 113,000 acres in Ontario, Canada. These operations contributed a modest profit during 1972.

Oil and Gas Operations

Texasgulf supports an extensive exploration program for oil and gas in the United States and Canada, and is continually seeking opportunities for participation in attractive ventures throughout the world. Revenues from oil, gas and condensate production increased in 1972 and this trend should continue for 1973 as new production facilities in the Gulf of Mexico and in Western Canada are brought on stream.

The company's oil and gas production in the United States and Canada in 1972 and 1971 included:

	1972	**1971**
Oil and condensates (thousands of bbls.)	244	226
Gas (million cubic feet)	17,861	14,836
Natural gas liquids (thousands of gallons)	1,516	—

Texasgulf's reserves of trona in southwestern Wyoming consist of two flat-lying beds at depths of 1370 and 1420 feet. Underground and surface facilities to produce 1,000,000 tons of soda ash per year are planned for completion in 1976.

Texasgulf has a 25 per cent interest with the PAST group in Block 146, West Cameron area off Louisiana. Deliveries began at an initial rate of about 5 million cubic feet per day on January 13, 1973. The other participants in the PAST group are Phillips Petroleum, Allied Chemical and Skelly Oil Co. About five miles to the east, Texasgulf and its partners, Skelly and Amoco, have been producing from their West Cameron Block 144 platform at a sustained rate in excess of 60 million cubic feet of gas and 500 bbls. of condensate per day since December 1971. Texasgulf's interest in this block is also 25 per cent.

Farther out in the Gulf of Mexico off Louisiana, the PAST group has erected a production platform on East Cameron Block 273 and development is proceeding. Gas deliveries at an initial daily rate of 45 million cubic feet are expected by mid-summer. The PAST group is also studying various plans for developing gas reserves underlying West Cameron Blocks 544 and 594, both of which offset tracts being developed by other operators.

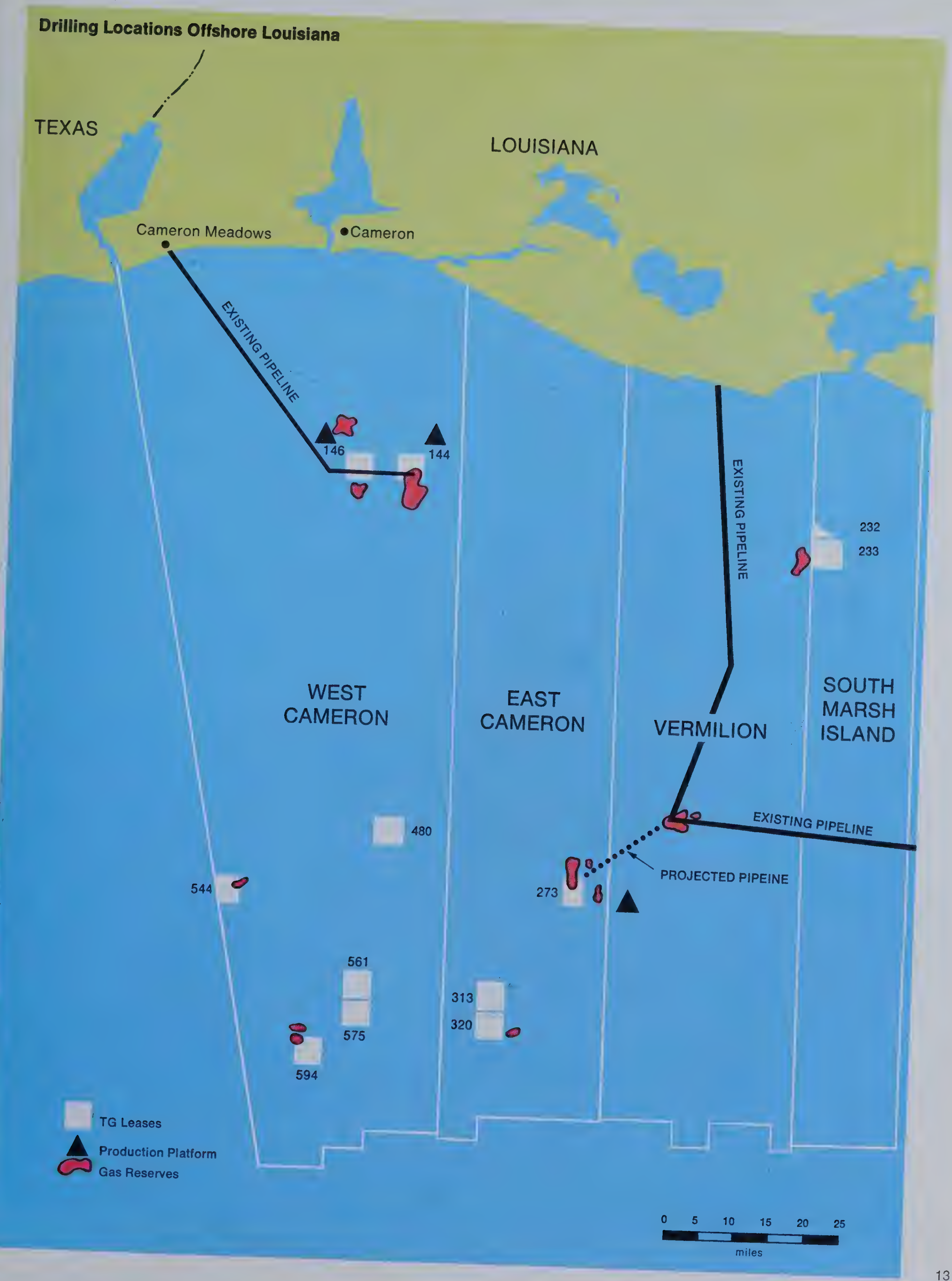
In December, the U.S. Court of Appeals in Washington, D.C. overruled the small producer exemption under which Texasgulf among others had been permitted to receive more than the area price of 26 cents per thousand cubic feet for gas produced in the Gulf of Mexico off-shore Louisiana. Texasgulf has petitioned the Federal Power Commission to approve its higher rates and would expect some relief from area pricing to result.

Exploration, Oil and Gas

Gulf of Mexico. In addition to supporting a continuing exploration program to evaluate and develop oil and gas leases previously acquired offshore Louisiana, Texasgulf participated in two major Federal lease sales in 1972. After unsuccessfully bidding $12.5 million in September, Texasgulf returned in December to bid $64.7 million on fifteen tracts. As a measure of the competitiveness of these bids, it is interesting to note that Texasgulf in consortia with others placed the first, second or third high bid on eight of these fifteen tracts, including second place bids on the two highest priced tracts awarded in the sale. Texasgulf was successful in bidding $4.2 million for interests in two leases, including a twenty per cent interest in West Cameron Block 480 and a one-third interest in a tract covering portions of South Marsh Island Blocks 232 and 233.

Elsewhere in the Gulf of Mexico, Texasgulf is pursuing its policy of joining other strong and aggressive companies in thoroughly evaluating areas in preparation for lease sales already scheduled by the Secretary of the Interior or expected to be in the not too distant future. These areas include the eastern part of offshore Texas in partnership with Phillips and Allied Chemical; in the eastern gulf offshore Alabama, Mississippi and Florida with Sun Oil, Monsanto and Consolidated Gas Supply; and offshore south Texas in a new group including Northern Natural Gas and Total

(Left) Gas deliveries from a new production platform in Block 146, West Cameron area off Louisiana, began January 13, 1973.
(Right) A new mobile drilling platform capable of drilling 30,000-foot wells in water depths to 300 feet went on station in mid-1972.



Drilling Locations Offshore Louisiana

American Inc., a subsidiary of Compagnie Française des Petroles, with Texasgulf as operator.

Canada. Oil and gas operations in the Province of Alberta by Texasgulf and its subsidiaries in 1972 were essentially unchanged from 1971. Five wells completed in late 1971 were tied into the Provost Field production system. A development and field extension program at Provost will be undertaken in 1973. This should expand the field's production and ultimate recovery.

In the Battleford area of western Saskatchewan, Texasgulf continues its evaluation of extensive but heavy and viscous hydrocarbon deposits which underlie its substantial land position. Although no technological breakthrough that would permit their commercial exploitation is expected soon, a gas discovery in late 1972 by Canadian Geothermal Ltd. and Texasgulf in a shallow overlying reservoir and a confirmation gas well will provide added incentive for further drilling and study and will contribute some revenue.

Senegal and Malagasy. During 1972, Texasgulf in partnership with Compagnie Française des Petroles (CFP) successfully negotiated extensions of jointly owned petroleum permits off Senegal and the Malagasy Republic.

In Senegal the extension was in the form of a reconstituted permit in which Texasgulf retains a 27 per cent interest covering a considerably larger area, 3.3 million acres, with an initial term of five years and provision for two five-year extensions. In addition to retaining the more prospective areas delineated by past programs, the new permit extends the area westward for further exploration down the continental slope, a province that has become the focus of major company interest off west Africa today. A seismic survey has been scheduled for 1973.

After several months' delay occasioned by a change of government, the renewal of the Malagasy permit was approved for a second five-year period. Taking into account mandatory relinquishment and incorporating approximately 1,000,000 new acres onshore, the permit area now measures 7,000,000 acres. Seismic programs originally scheduled for 1972 have been rescheduled for 1973, after which a decision will be made as to the drilling program for 1974. Texasgulf has a one-third interest in this joint venture.

Although drilling in both Senegal and the Malagasy Republic has yielded only limited showings of hydrocarbons to date, both permit areas are still deemed sufficiently prospective for major oil and gas reserves to encourage further exploration. The fact that this assessment is shared by other major oil companies is reflected in the relatively high level of exploration activity and drilling carried on by several companies during the past year in areas contiguous to the Texasgulf-CFP permits.

Exploration for other minerals in the United States in 1972 included geological and geophysical studies followed by drilling in Arizona, Colorado, Minnesota, New Mexico, Nevada and Wisconsin.

Exploration—Other Minerals

Exploration for other minerals continued actively in 1972 in many areas of the United States, Canada, Australia and Africa. The minerals of principal interest include those of copper, zinc, nickel, lead, silver, gold, molybdenum, uranium and iron.

Projects in the United States included geological and geophysical studies followed by drilling in Arizona, Colorado, Minnesota, New Mexico, Nevada and Wisconsin. The programs in these states will continue in 1973.

In Ontario, Canada, exploration including drilling for base metals is being done on several anomalies in the general Kidd Creek area.

Robb Lake. A Texasgulf subsidiary, Ecstall Mining Limited, has a 40 per cent interest in a joint venture near Robb Lake in Northern British Columbia. Seven of 29 diamond drill holes completed in 1972 showed sections of lead-zinc mineralization with wide variations in thickness and grade. Intersections in these seven holes varied from 4.3 to 26.1 per cent in combined lead-zinc mineralization and from 8 to 15 feet in true thickness. There are 16 known outcrop areas on the property. Ten of these have been sampled and seven have shown significant results containing from 4.8 to 20.7 per cent combined lead-zinc mineralization over estimated true thicknesses of 9 to 28 feet. Large parts of the property have untested potential and exploration, including diamond drilling, will be continued in 1973.

Baffin Island, Canada and Texistepec, Mexico. On August 3, 1972, an agreement with Mineral Resources International Limited (MRI), a Canadian company, was announced under which MRI was granted an option on Texasgulf's Baffin Island zinc-lead property in the Canadian Arctic. If the property is placed in production, Texasgulf will receive 35 per cent of the net profits after the recovery of production financing by MRI and exploration and development expenditures incurred by both parties. MRI will be responsible for all financing without any obligation on the part of Texasgulf to participate. MRI expects that a development feasibility study on the Baffin Island property, being prepared at a cost estimated at $700,000, will be completed by the end of May, 1973. Tentative plans involve the construction of a dock this fall and the preparation of foundation pads for a concentrator, powerhouse, concentrate storage shed and other buildings. Financing for production is presently estimated at over $30 million for a 1,500 to 2,000 ton per day operation.

Under the agreement, Texasgulf acquired MRI's 34 per cent stock interest in a Mexican company which holds the sulphur concession adjacent to the Texistepec property of Texasgulf's Mexican affiliate, Compania

Exploration projects in the United States, Canada, Australia and Africa will continue actively in 1973, with emphasis on the search for copper, zinc, lead, silver, gold, nickel, molybdenum, uranium and iron.

Exploradora del Istmo (CEDI). The transaction with MRI was negotiated with the encouragement of the Mexican Government. Action by the Mexican Government, which will permit the mining of this sulphur property, is expected soon. Since the property is contiguous to Texistepec, it can be easily mined with the present mining and power plant facilities. Space for the addition of more boilers for heating water if needed was provided for in the original design.

Western Australia. Exploration on a nickel-copper sulphide project at Sherlock Bay near Roebourne in Western Australia has resulted in a preliminary estimate of more than 75 million tons of mineralized material. Drilling has intersected mineralization in two contiguous, nearly vertical zones with a total length of about 5,000 feet and an average width of over 50 feet. The deepest hole to date has intersected the mineralized zone at a depth of over 3,000 feet with a thickness of about 55 feet. The average grade appears to be about 0.5 per cent nickel, with some parts assaying up to 1.3 per cent nickel with minor copper. Iron is also present as magnetite and in pyrrhotite.

Results of metallurgical and other studies to determine the commercial feasibility of the Sherlock Bay project have been encouraging. Preliminary tests indicate a satisfactory nickel concentrate can be made with a good recovery. Drilling is continuing and studies are also under way to develop capital investment and operating costs for mining and processing facilities. The location is very favorable, being on the Indian Ocean near the main coastal highway, 18 miles west of Mons Cupri and 20 miles east of Roebourne.

Airborne geophysical and regional geological studies have indicated numerous other potential nickel anomalies in the general Sherlock Bay area between Roebourne and Port Hedland. Texasgulf has most if not all of these geophysical anomalies covered by mineral claims or by other rights of occupancy. Drilling has been started on a second large anomaly nearby.

Mons Cupri is still under active study and can be brought into production at today's metal prices. Feasibility studies are based on an open pit mining operation supplying 1,000 tons of sulphide ore per day from two contiguous sulphide zones, capped by oxidized copper. At this time it appears that Mons Cupri has 12 to 15 million tons of 1 per cent copper, containing over 1 million tons of 2.5 per cent lead, 3.6 per cent zinc, and 2 ounces of silver per ton. It could be even more attractive if an operation is undertaken at Sherlock Bay.

A few miles to the northeast of Mons Cupri a recent drill hole has found encouraging copper-zinc mineralization. More drilling will be required and is in progress.

Drilling on a nickel-copper sulphide project at Sherlock Bay near Roebourne in Western Australia has resulted in a preliminary estimate of more than 75 million tons of mineralized material.

Australia—Iron Ore Projects

Robe River. Construction of the $300-million Robe River iron ore project in which Texasgulf has a 10.5 per cent interest was completed on schedule and within budget in late 1972. Shipments of sinter fines to Japan started in early October and of pellets in December. Total shipments in 1972 included 1,185,220 tons of sinter fines and 236,190 tons of pellets. Under long-term contracts with several Japanese steel companies, shipments are scheduled at the rate of 8.2 million tons in 1973, increasing to 10.3 million tons by 1975, of which 4.2 million tons each year will be as pellets.

Sales contracts for additional tonnage are under active negotiation. The shipping facilities at Cape Lambert have a capacity of up to 30 million tons per year.

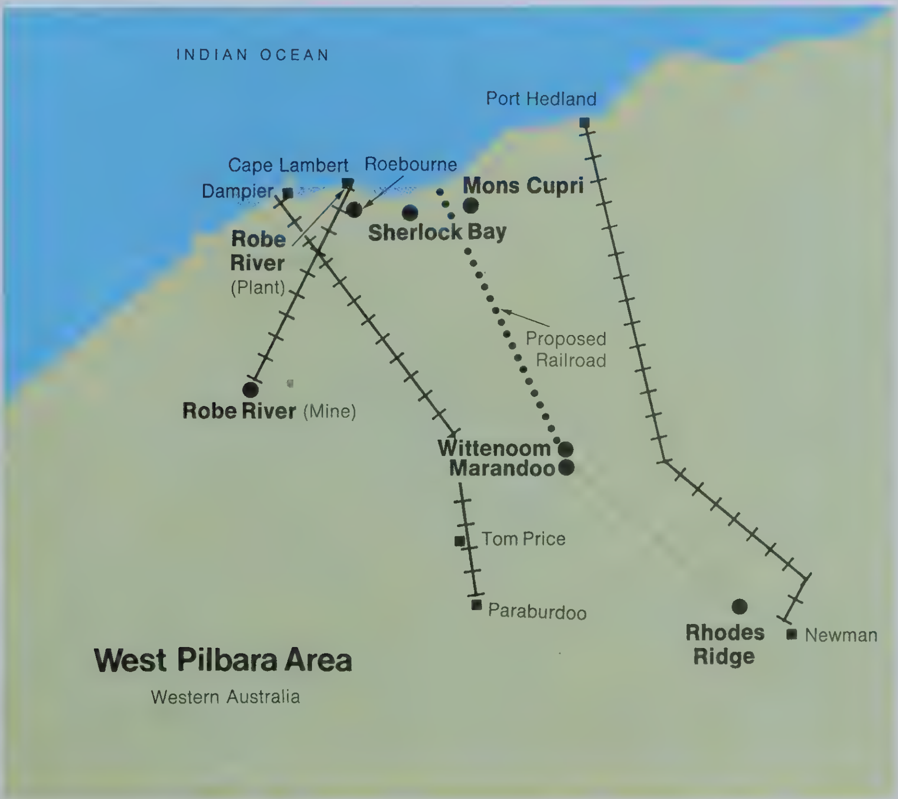
The significant product is the high-quality pellet, production of which may be expanded soon by adding another pellet line of 2.1 million tons per year capacity.

Rhodes Ridge. A formal agreement covering iron ore reserves in the Rhodes Ridge area, in which Texasgulf has a 50 per cent interest, was signed in Perth on October 12 by the Premier and other high officials of the Western Australian Government, by Hancock and Wright and Texasgulf. The agreement gives Texasgulf and Hancock and Wright of Perth (Hanwright) occupancy and mineral rights for five years and extensions as necessary until production is achieved. The Western Australian Government would then grant a 21-year renewable mining lease.

During the past two years some 500 holes have been drilled and three tunnels made in the Rhodes Ridge area, confirming reserves of more than one billion tons of better than 61 per cent iron with a phosphorous content averaging about 0.12 per cent and alumina 2.0 per cent. A substantial tonnage of lower phosphorous ore has also been delineated. During 1972, the Western Australian Government also granted Hanwright and Texasgulf rights of occupancy to additional areas adjacent to Rhodes Ridge on which deposits of high grade ore—64 per cent iron and less than .04 per cent phosphorus and low alumina—have been found and are being further outlined and evaluated.

Marandoo-Wittenoom. Texasgulf is evaluating other iron ore reserves in the Wittenoom area, 100 miles northwest of Rhodes Ridge and about 150 miles from the ocean. Present plans call for a joint venture with Hanwright whereby Texasgulf would have a 50 per cent interest and would be responsible for management and sales. The project has been named Marandoo, the aboriginal word for "plenty." During 1972, 52 holes were drilled and a tunnel showing very high grade ore has been driven to obtain bulk samples for metallurgical testing. Drilling is continuing. Results from this work

Texasgulf's several areas of interest in Western Australia include Robe River, Marandoo, Rhodes Ridge, Mons Cupri and Sherlock Bay.



over a four-mile strike length are very encouraging. The ore is approximately 75 feet thick with very little overburden and averages 63 per cent iron, less than .06 per cent phosphorus, and under 1.9 per cent alumina. The ore body also has significant amounts of manganese averaging about 0.5 per cent, but which is concentrated in some areas to over 2 per cent. Proven reserves are over 250 million tons, and the deposit is still open on three sides, with indications of potential reserves several times larger.

Closer to the ocean by about 25 miles in the Wittenoom area are several high grade iron gravel (scree) deposits formed by the erosion of in-place iron ore bodies. New technology may allow these to be developed initially in conjunction with Marandoo.

While Texasgulf participation in the project is subject to certain governmental approvals, an iron ore agreement has already been executed between Hanwright and the Western Australian government. The low content of phosphorous and alumina with contained manganese make the Marandoo deposit potentially one of the best yet found in Western Australia.

Because of the higher grade, other favorable qualities, and the shorter distance from the coast, the Marandoo-Wittenoom deposits are expected to be developed before Rhodes Ridge. The rail line from Marandoo would later be extended to Rhodes Ridge when needed.

Iron Ore Studies. Feasibility studies are now being made based on a 5 to 10 million ton per year rate to bring the Marandoo-Wittenoom deposits into production in the near future. A large capital investment will be required with substantial outside financing. Firm sales contracts will be necessary before any development can begin. Sales contracts are now being sought throughout the world.

Research and Engineering

A new research laboratory is under construction at the Table Mountain Research Center near Denver, Colorado. A two-story building with about 6,000 square feet is scheduled for completion in mid-1973. It will be leased from the Colorado School of Mines Research Institute. The laboratory will do research work in metallurgy, chemical engineering, mining, geology, and geophysics, supplementing the research activities of the operating divisions.

The Research and Engineering Department continued to assist all company operations in maintaining the highest standards of environmental quality control. Major projects on which the department assisted the operating divisions during 1972 included the design, engineering, procurement and construction of the Lee Creek acid plants, the new zinc plant at Kidd Creek and the conversion to solution mining at Cane Creek. It

Construction of the $300-million Robe River iron ore project in which Texasgulf has a 10.5 per cent interest was completed and shipments to Japan began in 1972. The facilities at Cape Lambert are shown in this aerial view.

contributed to the feasibility studies for the Wyoming trona and the iron ore projects in Western Australia.

Organization Changes

Alex E. Barron of Toronto, Ontario, a Canadian investment executive, was elected a member of the board of directors in February, 1973, to fill the vacancy created by the resignation of William S. Beinecke. The board expressed appreciation of Mr. Beinecke's more than six years of valued service.

David L. James was elected an assistant secretary and John T. Thornton was elected an assistant controller.

Dividends

Quarterly dividends of 15 cents per share were paid on March 15, June 15, September 15 and December 15, making a total of 60 cents per share in 1972.

On February 1, 1973, the board of directors declared a quarterly dividend of 15 cents per share payable March 15, 1973 to stockholders of record on February 15, 1973.

We are particularly pleased that Canadian ownership of the company's shares continues to increase and is now more than 14 per cent. Texasgulf is traded actively on the Toronto Exchange where it is listed with the symbol TXG.

On behalf of the board of directors, we would like to express our sincere appreciation to all Texasgulf employees, stockholders, customers and community neighbors for their interest and support throughout the year.

Respectfully submitted,

Claude O. Stephens
Chairman

Charles F Fogarty

Charles F. Fogarty
President

March 9, 1973

Ten Year Summary of Production (Figures are in short tons unless otherwise noted)

Product	**1972**	**1971**	**1970**	**1969**	**1968**	**1967**	**1966**	**1965**	**1964**	**1963**
Sulphur (long tons)	2,868,000	2,839,100	2,955,500	3,043,700	3,030,000	3,031,000	2,993,000	2,603,000	2,446,000	2,375,000
Oil & Condensates (barrels)	244,000	226,000	277,000	304,000	289,100	297,900	334,800	367,000	338,000	401,000
Gas (million cubic feet)	17,861	14,836	11,646	10,657	10,000	9,557	8,280	8,000	5,000	3,000
Potash	518,400	266,900	430,800	440,100	410,000	338,000	286,000	99,000		
Sulphuric Acid	1,035,000	744,000	670,000	686,000	697,000	525,700	24,000			
Phosphoric Acid (as 54% P_2O_5)	594,300	477,500	435,100	440,100	443,600	325,000	9,000			
Dry Fertilizers	405,700	281,000	298,800	365,600	409,000	275,600	5,000			
Copper Concentrates	182,200	182,100	172,000	184,000	205,400	205,000	9,400			
Zinc Concentrates	616,700	590,800	582,800	582,100	562,500	432,000	28,000			
Lead Concentrates	42,100	61,900	70,400	93,900	96,000	43,000	1,000			
Silver (troy ounces in the concentrates)	13,039,000	12,720,000	13,023,200	13,822,000	13,968,000	7,800,000				
Cadmium Metal (pounds in the concentrates)	3,034,000	3,214,000	3,201,000	3,156,000	3,049,000	1,989,000				
Zinc Metal (from new Zinc Plant)	60,100									

Financial Review

Earnings and Dividends. Metals accounted for nearly three-quarters of operating income in 1972. Income from agricultural products, particularly phosphate fertilizers, increased substantially. Sulphur also improved as a result of higher tonnage sales. Oil and gas earnings more than doubled to over $2,000,000.

The 202nd-205th consecutive quarterly dividends were paid during 1972. The annual rate of 60¢ per share amounted to $18,238,000, which is 25 per cent of cash earnings.

Sales. Gross sales less outside zinc and lead smelting and refining charges include approximately $26,000,000 in 1972 and $14,000,000 in 1971 for zinc metal purchased at current market prices and re-sold. Smelting and refining charges are down due to lower sales of zinc concentrates. Costs at the company's new zinc plant are not shown as a reduction of gross sales, but rather as an operating item under costs and expenses.

Sales of sulphur increased by nearly 500,000 tons while the average price received f.o.b. mines in the United States was about the same in 1972 as in 1971. Tonnage sales of potash were up substantially, but with little change in price.

Gross sales for phosphate products were up approximately 25 per cent. About two-thirds of this increase resulted from higher realized prices, primarily in export, and the balance from increased tonnage sales of fertilizer materials.

Costs and Expenses. Total operating and delivery costs were higher in 1972 because of greater tonnages sold in the agricultural and chemical operations.

The unit cost per ton of sulphur was up slightly because of increases in natural gas fuel and other operating costs. Gas costs will increase for 1973 and beyond. Costs per ton at Allan Potash Mines were lower. By year-end, cash costs at Moab were down to the level of total costs at Allan. Unit costs for phosphate fertilizers and phosphoric acid were lower because of higher volume. Costs per ton of ore at Kidd Creek were up slightly because the open pit was deeper.

Other expenses for exploration, overhead and interest totaled $31,584,000, or about 12 per cent of sales. Total interest expense is not allocated to the operating divisions. Selling, general and administrative overhead was about unchanged from the previous year.

Taxes. Income tax expense increased $8,100,000 in 1972 reflecting the continued effect of Canadian taxes on the company's operations and the increase in income before taxes of $13,400,000. The company's tax position is extremely complex and the increasing overall effective tax rate over the past few years gives recognition to the end of the tax holidays, depletion deductions both in the U.S. and in Canada and foreign tax credit carrybacks and carryforwards. It is expected that the 1972 effective rate is more indicative of the levels that might be expected in future years.

Capital Expenditures. During 1972, about $52,000,000 was spent on capital programs, which was under the amount budgeted for the year. The largest single project was the $17,000,000 spent to complete the $70,000,000 zinc plant at Timmins. Offsetting this, in part, was the receipt of nearly $7,000,000 from the Canadian government in the form of a grant on the total construction costs. Over $15,000,000 was spent at the Kidd Creek mine to continue the development of the underground.

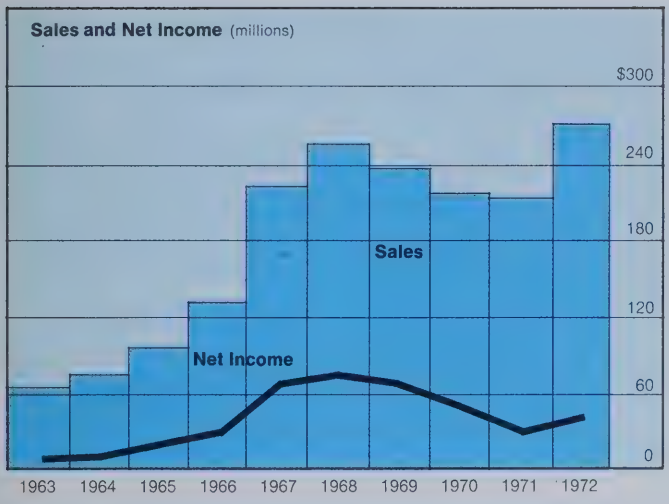
The agricultural and chemical group spent nearly $6,000,000 on capital programs, including the start of the 50 per cent expansion of the acid plants at Lee Creek, the completion of the conversion to solution mining at Moab and normal replacement items for the Frasch sulphur mines.

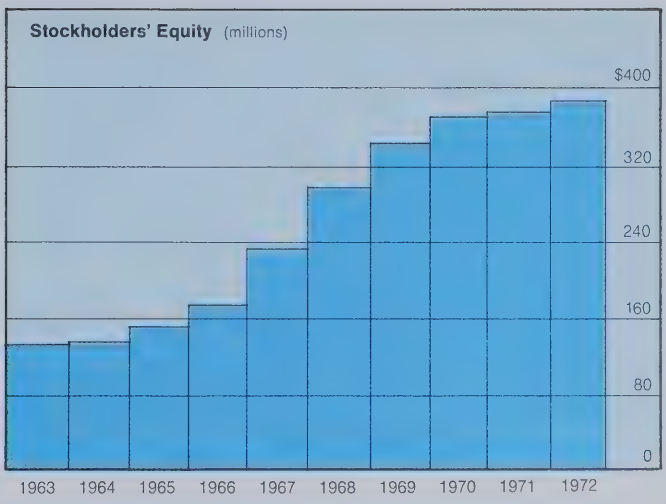
Exploration expenditures totaled more than $11,000,000, including over $2,000,000 spent in Australia. Of the remainder, one-third was for minerals and two-thirds for oil and gas, principally in the Gulf of Mexico. Of the $4,200,000 successfully bid for two tracts offshore Louisiana in December, $840,000 was paid in 1972 and the balance was accrued and paid for in January, 1973.

The capital expenditure budget for 1973 is about $75,000,000. Exploration is planned at the same level as in 1972, but more could be spent depending on success in off-shore lease sales in the Gulf of Mexico. The expansion of the acid plants at Lee Creek will require over $20,000,000. Nearly $30,000,000 is budgeted for Timmins to include underground mine development, conversion of the zinc plant to continuous operations, completion of the tin circuit and continuing work in the tailings area.

Financing. In February, 1972, $20,000,000 was repaid on term notes with U.S. banks. The final payment in the same amount was made in February, 1973. This borrowing at fixed rates was arranged in 1966.

During the spring of 1972, $31,000,000 (Canadian) was borrowed under credit agreements with two Canadian banks, bringing the total outstanding to $100,000,000. These borrowings are on a revolving basis until 1973 with a right then to convert each to a





term of an additional six years. No principal repayment would be required until 1975 when the first of nine equal semi-annual repayments would be made on each term note. Interest is at the bank's minimum commercial lending rate for the first year of the agreement, ¼ of 1% over that rate for the second year, and ½ of 1% over for the term portion of the loan. The minimum commercial rate has been 6%. The company anticipates conversion of these borrowings to long-term debt.

The total amount outstanding on the 4.70% notes due in 1989 was reduced $2,750,000 during the year to $46,750,000. The balance on the 5.75% notes of a subsidiary due in 1986 was reduced $1,000,000 to $17,500,000. Euro-dollar notes outstanding under revolving credits were reduced $3,600,000 to $12,400,000. Interest rates on these outstanding borrowings range from 6¼% to 6½%.

The company has a contingent obligation as guarantor of 35% of the borrowings of an affiliate under a credit agreement with banks providing up to $60,000,000 for use in construction of the Robe River iron ore project. During 1972, borrowings reached the $60,000,000. Prior to year end the original credit was increased by $10,000,000 of which $5,000,000 was utilized. The company is also the guarantor of 35% of the affiliate's borrowing under a credit agreement with the Export-Import Bank of the United States for up to $5,500,000. At year-end, $4,549,963 had been used.

During 1972 financing was done under short-term lines of credit with banks and reached a peak of $15,000,000. The amount outstanding was reduced by December 31st to $2,000,000, which was completely repaid in January, 1973. In addition to such lines of credit with banks, a new nine year term credit has been negotiated for $45,000,000 which should more than cover the financing necessary for projects presently committed.

Dollar Devaluation. Texasgulf has a minimal exposure to changes in foreign exchange rates for most of its current operations. Nearly all receivables are collectible in U.S. dollars. While some costs, such as delivery and metal treatment charges are incurred in foreign currencies, realignment of prices has been effected which more than offsets these changes.

The company's only foreign currency loan obligation is the Canadian dollar notes with Canadian banks. These borrowings were used in Canada for the construction of the zinc plant and underground development at the Kidd Creek mine. The Canadian dollar continues to float against the U.S. dollar and is only slightly higher since the U.S. dollar was devalued on February 12, 1973.

The Australian dollar was revalued by about 7 per cent against the U.S. dollar in December, 1972, and again by 10 per cent in February, 1973 after the U.S. dollar was devalued. These changes may have some adverse effect on operations at Robe River, where existing sales contracts are in U.S. dollars, but operating costs are in Australian dollars. For projects that are not fully structured, such as Rhodes Ridge, Marandoo and Sherlock Bay, it is not certain that changes in exchange rates will necessarily have any adverse effect. The need in international markets for these natural resources will provide for their eventual economic development.

Texas Gulf, Inc. and Consolidated Subsidiaries

Consolidated Balance Sheets

ASSETS

	December 31 1972	December 31 1971
Current Assets		
Cash	$ 14,028,000	$ 13,844,000
Short-term cash investments, at cost which approximates market	2,000,000	6,000,000
Accounts receivable, less allowance of $814,000 in 1972 and $1,086,000 in 1971	56,450,000	46,151,000
Inventories of minerals and products	70,486,000	67,792,000
Materials and supplies	13,028,000	10,873,000
Total Current Assets	155,992,000	144,660,000
Investments, Advances and Other Assets		
Securities of and advances to affiliates	35,558,000	33,406,000
Advance payments relating to the Utah potash property less amortization of $2,082,000 in 1972 and $1,665,000 in 1971	10,568,000	10,985,000
Recoverable Federal income taxes	12,100,000	12,100,000
Notes receivable, advances and other assets	5,013,000	6,498,000
	63,239,000	62,989,000
Property, Plant and Equipment at cost		
Lands, contract rights and development	183,141,000	172,401,000
Plants, buildings, machinery and equipment	427,478,000	395,748,000
	610,619,000	568,149,000
Less accumulated depreciation and amortization	168,039,000	148,412,000
	442,580,000	419,737,000
Unproven properties and exploration projects, less reserve for exploration costs of $11,108,000 in 1972 and $15,123,000 in 1971	49,619,000	42,630,000
	492,199,000	462,367,000
	$711,430,000	$670,016,000

See accompanying notes to consolidated financial statements.

LIABILITIES AND STOCKHOLDERS' EQUITY

			December 31 1972	December 31 1971
Current Liabilities				
Short-term notes payable			$ 2,000,000	$ —
Current portion of notes payable			23,750,000	23,750,000
Accounts payable and accrued liabilities			26,382,000	21,938,000
Income taxes payable			1,726,000	4,188,000
Other taxes payable			2,112,000	1,401,000
Deferred income taxes applicable to current assets			6,360,000	6,333,000
Total Current Liabilities			62,330,000	57,610,000
Notes Payable, less current portion				
Euro-dollar notes under revolving credit agreements			12,400,000	16,000,000
Canadian dollar notes under revolving credit agreements			99,240,000	68,269,000
Term notes, due 1973			—	20,000,000
4.70% notes, due 1989			44,000,000	46,750,000
5.75% notes, due 1986 (of a subsidiary)			16,500,000	17,500,000
			172,140,000	168,519,000
Deferred credit—proceeds from advance gas sales			11,445,000	11,393,000
Deferred Income Taxes			80,261,000	59,803,000
Stockholders' Equity				
Preferred stock, $1 par value—Authorized but unissued 5,000,000 shares			—	
Common stock, without par value—Authorized 45,000,000 shares; issued as follows:				
	1972	1971		
Outstanding	30,407,572	30,386,007		
In treasury	4,152,428	4,173,993		
Issued	34,560,000	34,560,000	26,175,000	26,175,000
Contributed capital			1,010,000	903,000
Retained earnings			383,446,000	371,122,000
			410,631,000	398,200,000
Less cost of treasury stock			25,377,000	25,509,000
Stockholders' Equity			385,254,000	372,691,000
			$711,430,000	$670,016,000

Texas Gulf, Inc. and Consolidated Subsidiaries

Consolidated Statements of Income and Retained Earnings

	Year ended December 31 1972	Year ended December 31 1971
Gross Sales	$316,048,000	$271,324,000
Less outside zinc and lead smelting and refining charges	45,506,000	53,625,000
	270,542,000	217,699,000
Royalties, Interest and Other Income	2,876,000	3,250,000
	273,418,000	220,949,000
Costs and Expenses		
Operating, delivery and other related costs and expenses	188,922,000	148,004,000
Exploration	6,229,000	11,641,000
Selling, general and administrative	13,323,000	12,981,000
Interest	12,032,000	8,847,000
Income taxes	22,350,000	14,250,000
	242,856,000	195,723,000
Income Before Extraordinary Charge	30,562,000	25,226,000
Extraordinary Charge relating to abandonment of mining equipment due to change from underground to solution mining, net of applicable income tax of $3,227,000	—	(4,675,000)
Net Income	30,562,000	20,551,000
Retained Earnings at January 1	371,122,000	368,803,000
	401,684,000	389,354,000
Cash Dividends	18,238,000	18,232,000
Retained Earnings at December 31	$383,446,000	$371,122,000
Per Share of Capital Stock		
Income before extraordinary charge	$1.01	$ .83
Extraordinary charge, net of tax	—	($ .15)
Net Income	$1.01	$ .68
Dividends	$ .60	$ .60
Average Number of Shares Outstanding	30,395,912	30,386,007

See accompanying notes to consolidated financial statements.

Consolidated Statements of Changes in Financial Position

	Year ended December 31 1972	Year ended December 31 1971
Funds were provided from		
Income (excluding 1971 extraordinary charge which did not require or provide working capital)	$ 30,562,000	$ 25,226,000
Charges (credits) to income not involving working capital:		
Depreciation and amortization and write-off of exploration costs of prior years	22,241,000	23,794,000
Deferred taxes	20,458,000	(5,258,000)
Other items—net	707,000	922,000
Working capital provided from operations	73,968,000	44,684,000
Canadian grant applicable to zinc plant	6,894,000	—
Amortizable foreign tax credit carryback	—	6,050,000
Dispositions of property, plant and equipment	3,320,000	2,814,000
Increase in non-current notes payable	27,371,000	72,369,000
Proceeds from advance gas sales	377,000	11,393,000
Sale of capital stock	239,000	—
	112,169,000	137,310,000
Funds were required for		
Additions to property, plant and equipment	61,862,000	78,348,000
Additions to securities of and advances to affiliates	1,627,000	11,014,000
Additions to recoverable Federal income taxes	—	6,050,000
Additions to notes, advances and other assets	80,000	536,000
Portion of notes payable due within one year transferred to current liabilities	23,750,000	23,750,000
Dividends	18,238,000	18,232,000
	105,557,000	137,930,000
Resulting in an increase (decrease) in working capital of	$ 6,612,000	($ 620,000)
Net changes in the components of working capital:		
Current Assets		
Cash and short-term securities	($ 3,816,000)	($ 50,527,000)
Accounts receivable	10,299,000	1,216,000
Inventories	4,849,000	11,665,000
Current Liabilities		
Short-term notes payable	(2,000,000)	—
Current portion of non-current notes payable	—	200,000
Accounts payable and accrued liabilities	(4,444,000)	12,208,000
Taxes	1,724,000	24,618,000
Increase (Decrease) in working capital	$ 6,612,000	($ 620,000)

See accompanying notes to consolidated financial statements.

Notes to Consolidated Financial Statements

1. Summary of Accounting Policies.

A. Principles of Consolidation. The consolidated financial statements include the accounts of the company and all of its subsidiaries. The company's investments in service and non-operating companies, which are not material, had been carried at cost which approximated equity until 1972, when these companies were consolidated for the first time. This change has no effect on the comparability of the financial statements. All significant intercompany balances and transactions of the consolidated companies have been eliminated. Investments in affiliates owned less than 50 percent, including $22,744,000 at December 31, 1972 and $22,802,000 at December 31, 1971 applicable to Compania Exploradora del Istmo, a Mexican affiliate, and $10,305,000 at December 31, 1972 and $10,505,000 at December 31, 1971 applicable to Cliffs Western Australian Mining Company, an Australian affiliate, are carried on the equity basis. Earnings of affiliates recognized on the equity basis were not significant.

B. Translation of Foreign Currencies. Foreign currency items are converted at current or historical rates as appropriate. Gains or losses (immaterial in both years) are credited or charged to income. See also "Dollar Devaluation" in the Financial Review section of this report.

C. Inventories. Inventories of minerals above ground and products are stated at the lower of average cost or market. Materials and supplies are stated at average cost.

D. Depreciation and Amortization. The company's policy is to depreciate and amortize producing property, plant and equipment over the estimated lives of such assets by the application of the unit-of-production method in the case of mine properties and facilities and the straight-line method in the case of manufacturing facilities. In arriving at rates under the unit-of-production method, commercially recoverable product reserves are estimated by the company's geologists and engineers. Such estimates are revised from time to time as data becomes available to warrant revision. Under the straight-line method, the annual rates applied to the cost of the assets give effect to wear and tear, deterioration from natural causes, and normal obsolescence. Such rates are revised from time to time to conform with the estimated remaining useful lives of the assets.

E. Exploration. All expenditures on major exploration projects are capitalized pending determination of commercially exploitable reserves. The company accumulates costs initially in connection with broad areas of interest prior to property acquisition; thereafter, costs are allocated in the case of oil and gas exploration including all exploratory wells to leases acquired or concessions granted and in the case of mineral exploration to properties acquired and ultimately to specific anomalies. Costs of dry holes on producing oil and gas properties are written off as incurred. Intangible oil and gas drilling costs on successful wells are capitalized, and the tax effects resulting from the deduction of such costs for current income tax purposes are deferred. Major projects determined to be commercially unsuccessful are written off and reserves are provided for all expenditures on minor projects. General administrative expense relating to overall exploration efforts is charged to operations as incurred.

F. Income Tax. The company has deferred to future periods the income tax effect resulting from timing differences between financial statement pretax income and taxable income. The deferred tax on these differences pertains principally to depreciable plant and equipment, development costs incurred on several properties, advance net profits payments related to the Utah potash property, and taxes and royalties included in inventories.

Investment tax credits utilized are deferred and amortized over the estimated lives of the related assets.

G. Pension Plan. The company has a pension plan covering substantially all employees, including employees in foreign countries. The policy is to fund pension cost accrued.

H. Research and Development. Research and development costs are expensed as incurred. These costs are primarily related to improved mineral recovery methods, product betterment and environmental control.

2. Depreciation and amortization of producing property, plant and equipment was $20,178,000 in 1972 compared with $15,995,000 in 1971.

3. Income tax expense for 1972 includes current state and foreign taxes of $1,865,000 and a net deferred tax charge of $20,485,000 which results primarily from the use of accelerated depreciation in determining the company's liability for foreign taxes. Because of permanent differences, principally depletion, and the available foreign tax credit, the company has no liability for Federal income taxes in 1972. Tax expense for 1971 comprised current Federal, state and foreign taxes of $19,800,000 and a net deferred tax credit of $5,550,000.

At December 31, 1972, the company estimates that a foreign tax credit carryforward, including the Ontario tax on mining income (see below), aggregating approximately $11,850,000 is available for use in the reduction of future U.S. Federal income tax payments under certain limitations on or before December 31, 1976. There is no assurance that applicable tax benefit will be realized; however, consistent with provisions of Accounting Principles Board Opinion No. 11, an appropriate portion of the U.S. deferred tax credit which would have been amortized during the carryforward period has been included in income, $1,600,000 in 1972 ($5,600,000 in 1971).

Investment tax credit carryforwards of approximately $6,900,000 are available as credits against future Federal income taxes. Of this amount $5,200,000 expires in 1976. The extent of utilization of these investment tax credit carryforwards is uncertain at this time.

The Internal Revenue Service has examined the company's tax returns for the years 1958 through 1968 and has challenged the company's treatment of several items in these returns. Should the Service prevail in these challenges, income for the years 1972 and 1971 would be reduced by approximately $3,000,000 and $3,900,000 respectively and prior years' income would be reduced approximately $7,950,000 after applicable reductions of deferred income tax credits; deferred income tax credits of $9,800,000 would be provided which would be amortized to income in future years; payments of Federal income taxes and interest in the amount of $22,700,000 would be required and the amount of recoverable Federal income tax would be reduced by $3,300,000. Numerous issues have been raised, the most significant of which pertains to the company's treatment of a tax paid to Ontario on income from the Kidd Creek mine. The company has claimed this tax as a credit against U.S. income taxes. The Service asserts this tax should be a deduction in arriving at U.S. taxable income. The company intends to contest all major issues and expects to prevail.

4. For certain information regarding long term debt and a guaranty, reference is made to the first through fourth paragraphs under "Financing" in the Financial Review section of this report.

Agreements relating to the notes payable and the guaranty described in the Financial Review contain provisions restricting the payment of cash dividends or the acquisition for value of shares of the company's stock. Under the most restrictive provision of such agreements, retained earnings in the approximate amount of $238,000,000 at December 31, 1972 was in excess of such restrictions. Additionally, certain of the agreements require the maintenance of $30,000,000 working capital as defined, which requirement was substantially exceeded at December 31, 1972. The agreements also provide that funded indebtedness, including the guaranty of obligations of others for borrowed money, may not exceed stockholders' equity plus deferred Federal income taxes.

5. Under a stock option plan approved by the stockholders in April, 1961, options were granted to officers and employees of the company and subsidiaries to purchase shares of the company's stock. Options become exercisable, as to 40 percent eighteen months after date of grant, as to 70 percent three years after date of grant, and as to 100 percent four years after date of grant and expire five years after date of grant.

During the Year Options:	1972 Shares	 Option Price Per Share	1971 Shares	 Option Price Per Share
Became exercisable as to . .	55,900	$\$15\frac{15}{16}$-$43\frac{15}{16}$	54,200	$\$16\frac{13}{16}$-$43\frac{15}{16}$
Were granted as to	—	—	23,000	$17\frac{1}{4}$ -20
Were cancelled or expired as to . . .	10,000	$15\frac{15}{16}$-$43\frac{15}{16}$	126,900	$15\frac{15}{16}$-$43\frac{15}{16}$
Were exercised as to	1,600	$15\frac{15}{16}$	—	—

At December 31, 1972, there were 233,400 shares under option, 133,800 of which were exercisable at prices ranging from $15 15/16 per share to $43 15/16 per share. The plan terminated as to the grant of additional options in 1971.

Under a stock option plan approved by the stockholders in April, 1972, options may be granted to officers and key employees of the company and subsidiaries to purchase up to 750,000 shares. In addition to granting "qualified stock options," which expire five years after date of grant, the company may also grant "non-qualified stock options" whose term shall not exceed ten years. No options under the plan were granted in 1972.

In April 1970, stockholders approved a Career Incentive Stock Plan. Under the Plan awards not to exceed 250,000 shares may be made out of treasury stock to officers and other key employees of the company and its subsidiaries. In 1972, awards of 29,025 shares were made, awards of 650 shares granted in 1970 were cancelled, and 7,065 shares were transferred under the plan. In 1971, awards of 300 shares were made and awards of 1,125 shares granted in 1970 were cancelled. Awards outstanding at December 31, 1972 and December 31, 1971 amounted to 57,585 shares and 36,275 shares respectively. An amount equal to the fair market value of the shares at the time of awards is being charged to income over the period in which the awards will be earned. Accordingly $263,000 was charged to income during 1972 ($168,000 in 1971). Shares are transferred 20% upon the second anniversary of the award and each anniversary thereafter.

There were no changes in contributed capital and treasury stock in 1971. In 1972 contributed capital increased by $107,000 and treasury stock decreased by $132,000 due to the transfer of company stock under the stock option and career incentive plans.

6. The total pension expense for 1972 and 1971 was $3,915,000 and $3,825,000 respectively. The market value of the Plan assets, which are funded with trustees, exceeded the actuarially computed value of vested benefits at December 31, 1972 and 1971.

7. An agreement to settle the great majority of lawsuits brought by former shareholders in connection with the company's publicity concerning its Timmins exploration in 1963 and 1964 was approved April 11, 1972 by the U.S. District Court in New York City. A provision for the settlement in the amount of $1,673,000 after applicable tax benefit of $862,000 and anticipated recoveries from others was recorded in 1971 as a restatement of 1964 earnings. This restatement reduced net income per share in that year by $.06 to $.32.

Based on opinions of counsel, the company believes that all other lawsuits now pending against it, including those relating to the Timmins exploration, can be disposed of without material additional liability.

8. For information concerning the sale of purchased zinc metal see the first paragraph under "Sales" in the Financial Review section of this report.

9. The Bully Camp Frasch sulphur mine in Louisiana in which the company has a net unamortized capital investment of $9,447,000 suspended production at November 30, 1972. Additional information concerning the suspension is contained in the paragraphs headed "Natural Gas Energy Crisis" on page 10 of this report.

Accountants' Report

PEAT, MARWICK, MITCHELL & CO.
CERTIFIED PUBLIC ACCOUNTANTS
345 PARK AVENUE
NEW YORK, NEW YORK 10022

To the Stockholders of
Texas Gulf, Inc.

We have examined the consolidated balance sheets of Texas Gulf, Inc. and consolidated subsidiaries as of December 31, 1972 and December 31, 1971 and the related statements of income and retained earnings and changes in financial position for the two years ended December 31, 1972. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying consolidated balance sheets and consolidated statements of income and retained earnings and changes in financial position present fairly the financial position of Texas Gulf, Inc. and consolidated subsidiaries at December 31, 1972 and December 31, 1971 and the results of their operations and changes in their financial position for the two years ended December 31, 1972, in conformity with generally accepted accounting principles applied on a consistent basis.

Peat, Marwick, Mitchell & Co.

February 28, 1973

Texas Gulf, Inc. and Consolidated Subsidiaries

Ten Year Financial Summary

Income (in thousands of dollars)	1972	1971
Gross sales	$316,048	$271,324
Less outside zinc and lead smelting and refining charges	45,506	53,625
	270,542	217,699
Royalties, interest and other income	2,876	3,250
Operating, delivery and other related costs and expenses, including exploration	195,151	159,645
Selling, general and administrative expenses	13,323	12,981
Interest expense	12,032	8,847
Income taxes	22,350	14,250
Income before extraordinary charge	30,562	25,226
Extraordinary charge net of applicable income taxes	—	(4,675)
Net income	30,562	20,551
Cash earnings‡	73,968	44,684
Financial Position (in thousands of dollars)		
Current assets	155,992	144,660
Current liabilities	62,330	57,610
Working capital	93,662	87,050
Mineral and product inventories	70,486	67,792
Property, plant and equipment—net	492,199	462,367
Total assets	711,430	670,016
Notes payable, less current portion	172,140	168,519
Stockholders' equity	385,254	372,691
Other Data**		
Per Share of Capital Stock—		
Income before extraordinary charge	1.01	.83
Extraordinary charge, net of tax	—	(.15)
Net income	1.01	.68
Cash earnings	2.43	1.47
Dividends	.60	.60
Number of stockholders	80,247	82,511
Average number of shares outstanding	30,395,912	30,386,007

*1964 restated. Net income per share in 1964 was reduced by $.06 to $.32 to reflect a provision during 1971 for the settlement of stockholders litigation in the amount of $1,673,000 after applicable income tax benefit of $862,000 and after anticipated recoveries from others. The settlement was approved by the U.S. District Court in New York in 1972.

**Adjusted for three for one stock split at May 6, 1968.

1970	1969	1968†	1967†	1966†	1965†	1964*	1963
$283,047	$301,769	$309,915	$253,099	$132,718	$ 98,981	$ 70,370	$ 62,249
63,588	62,466	43,957	30,356	2,381	—	—	—
219,459	239,303	265,958	222,743	130,337	98,981	70,370	62,249
10,868	10,760	7,953	3,778	3,338	3,301	2,906	1,327
143,060	147,574	155,932	125,864	84,415	68,763	52,173	47,625
11,649	11,801	10,391	10,120	9,765	7,362	8,578	5,047
7,545	6,872	6,603	6,835	4,732	2,597	2,304	—
22,250	22,350	29,500	20,700	6,900	4,350	338	1,550
45,823	61,467	71,485	63,002	27,863	19,210	9,883	9,354
—	—	—	—	—	—	—	—
45,823	61,467	71,485	63,002	27,863	19,210	9,883	9,354
56,298	88,836	109,390	93,202	43,449	27,713	17,388	17,562
182,306	226,306	199,625	92,834	57,390	64,636	97,340	64,772
94,636	53,375	48,891	25,657	26,396	14,714	12,704	17,797
87,670	172,931	150,734	67,177	30,994	49,922	84,636	46,975
57,907	49,240	37,611	28,999	18,628	19,738	24,026	27,717
419,429	310,215	300,179	295,245	278,410	148,862	92,380	72,732
647,146	576,326	529,027	418,072	364,740	243,019	220,779	187,283
119,900	117,346	125,500	115,000	135,000	55,000	55,000	—
370,372	342,781	297,876	235,565	175,556	151,363	135,709	129,715
1.51	2.02	2.36	2.08	.92	.64	.32	.31
—	—	—	—	—	—	—	—
1.51	2.02	2.36	2.08	.92	.64	.32	.31
1.85	2.92	3.61	3.08	1.44	.92	.58	.58
.60	.55	.33⅓	.13⅓	.13⅓	.13⅓	.13⅓	.13⅓
79,728	72,149	62,001	48,529	49,553	47,911	50,821	64,918
30,386,007	30,384,352	30,323,681	30,223,094	30,126,680	30,055,922	30,037,566	30,047,814

†1965 to 1968 restated. As a result of the restatement of exploration expense wherein all costs on major projects were capitalized pending determination of the success of a project, net income per share for 1965-1968 was increased (decreased) from previously reported amounts as follows: 1968, $965,000 or $0.03; 1967, $900,000 or $0.03; 1966, ($233,000) or ($0.01); 1965, $1,049,000 or $0.04.

‡Cash earnings consist of net income (prior to the extraordinary charge in 1971) plus non cash charges, chiefly depreciation, amortization, write off of exploration costs of prior years, and deferred taxes.

Officers and Staff

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Chairman of the Board

Charles F. Fogarty
President

H. V. W. Donohoo
Senior Vice President
Agricultural Division
Raleigh, North Carolina

James W. Estep
Senior Vice President
Western Operations
Calgary, Alberta

E. Orys Mason
Senior Vice President
Frasch Sulphur Division
Houston, Texas

Richard D. Mollison
Senior Vice President
Metals Division
Toronto, Ontario

David M. Crawford
Secretary

Gino P. Giusti
Vice President
Employee Relations
and Administration

John W. Hall, Jr.
Vice President
Marketing

Walter Holyk
Vice President
Exploration
Toronto, Ontario

Harold B. Kline
Vice President
and General Counsel

Gordon N. McKee, Jr.
Vice President
and Treasurer

Walter F. Meyer
Vice President and Controller

Frank R. Moulton, Jr.
Vice President
Oil and Gas
Exploration and Production
Houston, Texas

James R. West
Vice President
Research and Engineering

Administrative	Arthur A. Berger	Office Manager
	Kenneth J. Kutz	Assistant to the President and Manager of Australian Iron Projects
	John G. Stengel	Data Processing Manager, Raleigh
Employee Relations	Thomas G. Downing	Assistant Manager
	F. Wayne White	Assistant Manager
	William O. Britt	Compensation Manager
Exploration		
Oil, Gas and Sulphur	Weyman W. Crawford	Regional Manager, Houston
	Maurice Mazurkewich	Regional Manager, Calgary
Other Minerals	Brian W. Hester	Regional Manager, Ayr, Scotland
	J. Russell Loudon	Regional Manager, Johannesburg, South Africa
	George W. Mannard	Regional Manager, Toronto
	James A. L. White	Regional Manager, Denver, Colorado
Finance	John J. Burke	Assistant Credit Manager
	James A. Campbell	Assistant Controller—Taxes
	John T. Duffy	Assistant Controller—Audits & Budgets
	James J. Finn	Assistant Controller—General Accounting
	Charles J. Gillem, Jr.	Insurance Manager
	Robert P. Hedley	Assistant Treasurer
	John E. Johnson	Assistant Treasurer
	William F. Seamon	Credit Manager
	John T. Thornton	Assistant Controller—Accounting Policy
Legal	Joseph C. Brown	Assistant General Counsel and Assistant Secretary, Houston
	Meredith P. Crawford, Jr.	Counsel
	George W. Hugo	Counsel, Houston
	Earl L. Huntington	Counsel and Assistant Secretary
	David L. James	Counsel and Assistant Secretary
	Ted G. White	Counsel, Houston
	Charles W. Wilder	Counsel and Assistant Secretary
Marketing		
Advertising	Charles S. Bryk	Manager
Marketing Research	Paul A. Rittenhouse	Manager
	James A. Orser	Assistant Manager

Unless otherwise indicated location is New York

Transportation and Distribution

Houston, Texas

R. C. Ballard Trigg	General Manager
William H. Johnston	Assistant General Manager
Wilson R. Atwood	Rail Equipment Manager
William A. Carson	Cost and Planning Manager
Lewis Johnson	Marine Equipment Manager
C. Jerry Staffa	Terminals Manager
Robert L. Vordick	Distribution Manager
Maurice S. Weber	Transportation Manager

Public Relations

William D. Askin	Editor, Golden Triangle Magazine, Houston
Leo T. Tarpey	Assistant, Public Relations

Research and Engineering

Harry G. Bocckino	Assistant Manager
Robert J. Boyle	Assistant Manager
Arthur Gloster	Assistant Manager
Jack H. McLellan	Assistant Manager

Operations

Agricultural Division

Raleigh, North Carolina

John H. Wiley	Marketing Manager, Fertilizer Materials
Robert B. Gibbs	Western Area Sales Manager, Fertilizer Materials, Oakbrook, Ill.
Bryan W. Guess	International Sales Manager, Fertilizer Materials
Anderson O. Harwell	Technical Salesman, Fertilizer Materials
Jack L. Milani, Jr.	Market Planning Manager
Charles T. Odum, Jr.	Eastern Area Sales Manager, Fertilizer Materials
Roy F. Underwood	Sales Systems Manager

Phosphate

Aurora, North Carolina

David C. Edmiston, Jr.	General Manager
James R. Paden	Production Superintendent
Scott F. Stidham	Administrative Superintendent
Cameron W. Albin	Acid Plants Superintendent
June W. Crawford	Engineering Superintendent
Robert J. Forest	Purchasing Agent
Harvey A. Franz, Jr.	Chief Accountant
Albert E. Gibson	Fertilizer Plants Superintendent
David B. McDonald	Mine Superintendent
Robert F. Malkemes	Maintenance Superintendent
Earl M. Mason	Supervisor of Distribution
John R. Pyburn	Employee Relations Superintendent
Frank H. Robinson	Mill Superintendent
Brooks M. Whitehurst	Technical Services Superintendent

Armstrong Forest Division

Johnsonburg, Pennsylvania

Arthur L. Bennett	General Manager

Frasch Sulphur Division

Houston, Texas

Frank J. Claydon, Jr.	Sales Manager, Sulphur
H. Newton Cunningham, Jr.	Assistant Sales Manager, Sulphur
V. Benner Dowe	Government Relations Manager
Walter B. Gillette	Assistant Sales Manager, Sulphur, New York
Earl W. Hanna	Assistant to the Senior Vice President

Newgulf, Texas

Charles F. Drees	General Manager
Byron N. Soderman	Assistant General Manager
Douglas C. Anders	Accounting Manager
Edward J. Bohuslav	Maintenance Manager
R. Lindsay Carter, Jr.	Purchasing & Warehousing Manager
Murray O. Clapp	Traffic Manager
Edward H. Conroy, Jr.	Quality Control Manager
Ernest M. Dunn	Mine Manager, Moss Bluff, Texas
Wayne Herrington	Engineering Manager
Edmond Herschap, Jr.	Employee Relations Manager
Glenn L. King	Field Manager
Robert L. McDaniel	Terminal Manager, Beaumont, Texas
Alec C. Mayfield	Power Plant Manager
Clyde B. Northcutt	Beaumont Operations Manager, Beaumont
Lloyd L. O'Neal, Jr.	Mine Manager, Bully Camp, La.
Raymond J. Staffa	Administrative Assistant to the General Manager
Clinton P. White	Public Relations Manager

Metals Division

Toronto, Ontario

Kent D. Hoffman	Sales Manager, Metals
Bruce W. Gilbert	Assistant Sales Manager, Metals
Leroy T. Kling, Jr.	Accounting Supervisor
H. Devon Smith	Public Relations Manager

Ecstall Mining Limited
Timmins, Ontario

P. Ray Clarke	Vice President and General Manager
Michael P. Amsden	Mill Superintendent
David G. Baskin	Traffic Superintendent
J. Eric Belford	Mine Superintendent, Underground
George C. Coupland	Mine Superintendent, Surface
Frank S. Gaunce	Zinc Plant Superintendent
Donald F. Grenville	Employee Relations Superintendent
G. Merle T. Marshall	Engineering Superintendent
Angelo Matulich	Chief Geologist
Gerard F. O'Halloran	Maintenance Superintendent
Alan G. Perry	Assistant to the General Manager
Albert W. Scragg	Chief Accountant
Robert J. C. Tait	Chief Metallurgist
Barton A. Thomson	Mining Manager

Western Operations

Potash

Moab, Utah

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Albert K. Gentry	Operations Superintendent
Frank J. Peternell	Safety Supervisor
Herbert S. Price	Assistant to the Manager
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Richard C. Reynolds, Jr.	Employee Relations Supervisor
Everett L. Schumaker	Purchasing Agent

Recovered Sulphur

Calgary, Alberta

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Edward W. Plum	Assistant Manager
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Dennis B. Kanten	Traffic Coordinator
T. Stafford Mosher	Chief Accountant
James J. Rennie	Traffic Superintendent, Whitecourt, Alberta
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Trona-Soda Ash

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